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The Relationship between Cultural Values and National Competitiveness:

General Pattern and Specific Country Studies of South Korea and Malaysia

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Abstract

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The transformative success of East Asian economies (e.g. Hong Kong, Korea and Taiwan), from agrarian to advanced economies within a short period of time, has fascinated academicians as well as practitioners. While theories abound as to the cause of these transformations, some studies focus on the role of cultural factors. The relationship between culture and the growth of East Asian economies has been studied extensively, but most studies have concentrated on the role of Confucianism. Instead of focusing on the role of Confucianism, this study undertakes a more in-depth examination of the East Asian economic phenomenon by employing a cultural model in which cultural values are categorized according to three dimensions; namely, Individualism-Collectivism, Uncertainty Avoidance, and Openness. The correlation between sub-components of culture and competitiveness was examined across many countries, followed by specific

country studies of South Korea and Malaysia. Korea was selected as being representative of an advanced innovative East Asian economy; while Malaysia was chosen to represent a developing economy which tried to imitate the successes of Japan and Korea. Specific case studies are used for illustration purposes and to overcome some of the limitations of quantitative research.

This dissertation starts with an outline of the research context, objectives, and the significance of the study. This is followed by an extensive review of the economic and cultural literature, a discussion of various cultural theoretical models, and a review of recent empirical findings. The study's research methodologies are explained in detail with key terms defined in terms of the research framework. For the purposes of this study, national competitiveness has not been defined by any single index, but is represented by a range of competitiveness indicators, such as innovation, education, technology, trade openness, and FDI inflows. Correlation analysis is conducted to determine the relationship between culture and competitiveness based on data from a range of countries, and then specific country studies of Korea and Malaysia are undertaken.

This study's findings suggest that cultural values are highly correlated with competitiveness. Based on the correlation test, Individualism was found to have a strong positive relationship with innovation. Similarly, Uncertainty Avoidance was found to have a positive relationship with both academic performance and R&D expenditure. A culture of openness also has a positive relationship with Foreign Direct Investment (FDI) attractiveness and trade openness. All of these

three dimensions have a strong positive relationship with Gross Domestic Product (GDP) per capita. The study also revealed that many of the most prosperous countries, such as Finland, Germany, Netherland, Norway, Sweden and Switzerland rank highly in Individualism, Uncertainty-Avoidance, and Openness. These countries enjoy a high rate innovation, excellent educational achievements, large expenditure of R&D, and high degree of international business openness.. Other cultural blocs, such as Latin America, the Middle East, and South East Asia rank low in Uncertainty Avoidance. These countries also rank relatively low in terms of technology innovation, R&D expenditure and academic performance. Confucian bloc countries, such as China, Japan and Korea rank high in Uncertainty Avoidance and Collectivism, but very low in Openness. These countries are yet to achieve the innovation levels of the West, and are relatively low in terms of FDI attractiveness and trade openness. Thus, the promotion of Individualism and Openness are key cultural factors for enhancing competitiveness and growth in East Asia. This study also found that Individualism was the most influential cultural factor for the promotion of innovation, trade openness, FDI openness, and GDP per capita. Uncertainty Avoidance was also found to be strongly related to national educational performance.

The specific country studies of Korea and Malaysia also supported the quantitative findings of this study. By looking at the economic development process of Korea over the past few decades, this paper demonstrates that Korea has gradually begun to shift away its collectivist past and has slowly begun to

embrace individualism. Although Korea certainly has at its core a strong collectivist culture, its selective adoption of certain aspects of Individualism has enabled Korea to enhance its innovation and competitiveness. Individualist values that have contributed to Korea's innovativeness and subsequent prosperity include the recognition of merit and competitive reward systems for executives and the adoption of more liberal approaches to corporate management. Uncertainty avoidance is another cultural strength of Korea. Korea's higher sense of urgency and future-oriented attitudes translate into a deep concern for R&D and education. The 1997 Asian financial crisis drove up Korea's Uncertainty-Avoidance Index, and forced Korea to further liberalize its corporate governance to catch-up to international standards.

In this paper, comparisons are made between Korea and another collectivist society, Malaysia. Unlike Korea, Malaysia is relatively more tolerant of uncertainty and is more open to foreign input. However, the racial collectivism, protectionism, and low uncertainty-avoidance present a barrier to enhancing Malaysia's competitiveness; particularly in the innovation-oriented industries and international business arena. Race-based collectivism limits the openness of Malaysia; the low merit-based systems of governance and Uncertainty-Avoidance culture reduce the sense of urgency in pursuing innovation growth. In addition, as a tropical resource-rich country, Malaysia has relatively a more relaxed culture. The nature of the fast changing hi-tech industry seems not to be well matched to the local culture. Overall, while Korea has become more open and more merit-oriented while highly avoidant of Uncertainty Avoidance,

Malaysia has continued to reinforce its race-based form of collectivism, while still being low in Uncertainty Avoidance. And while reforms are absolutely essential if Malaysia is ever to become an innovation-driven economy in the future, for a culture with such a large culturally ingrained sense of power distance, such reforms will not come easily and certainly not without the political will to take the nation into the future. A prosperous capitalist economy demands a result-orientated capitalist philosophy. Thus, cultural change should be pursued by embracing values of competition, merit, and openness; values which have played a significant role in the prosperity of most innovative advanced economies.

Keywords

Cultural values, national competitiveness, South Korea, Malaysia

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CHAPTER 1: INTRODUCTION

The importance of cultural factors in the promotion of industrialization has been acknowledged by academicians over the past century. From Weber (1905), McClellan (1961), Huntington and Harrison (2000) to Hofstede (2001), scholars have consistently demonstrated that cultural practices are related to economic performance. And while other factors have most certainly played a role, no explanation of economic achievement is complete without an acknowledgement of the importance of culture. However, economists who emphasize the importance of economic systems tend to disagree with the cultural argument. Economists argue that individuals, regardless of their cultural and social background, are rational and self-interested (Loy 2008, p.157). In other words, cultural factor are not significant in explaining a nation's economic development. To the economist, what is more important is the market system. Nonetheless, since Asia's four advanced economies (Hong Kong, Korea, Taiwan and Singapore) had successfully industrialized within a short period of time, academicians are interested in understanding the role of cultural values in the grown of these nations (Hofstede 1988; Tu 1996). This question is particularly relevant in light of many other regional developing economies remaining stuck-in-the-middle income trap.

The Asian economies, such as China, Japan, Korea, Singapore and Taiwan, share similar values of hardworking cultures. Today Japan, Korea, and Singapore are considered high-income countries, and China is rapidly moving in the same

direction to become an advanced economy. While some do doubt China's ability to become an advanced economy in the future, China's economy is expected to continue to grow stronger.

However, many other developing countries remain stuck-in-the-middle income trap. A study by the Asian Development Bank (2012) suggested that in 2010, 35 out of the 52 middle-income countries around the world were unable to escape from the middle income trap (Time 12 March 2013). This middle income trap was more acutely felt in countries from Latin America and South East Asia.

Malaysia is one such middle income trapped country, sandwiched between low-wage economies and innovative advance economies. Little is known about why so few countries manage to reach high-income status or why the most successful economies have tended to come from similar cultural backgrounds. For many of developing economies, it is relatively easy to move from *least developed* to *developing*, but breaking out of that middle income trap and climbing any further up the economic ladder has proved difficult. But some recent successes breaking out of the middle income trap have been had in the East Asian region, particularly Korea, Taiwan, and Singapore. Their successes, particularly Korea's, has stimulated interest among other developing countries which would want to mimic that same transformative success. Malaysia is one such country that has been very keen to learn the secrets of becoming an innovation driven economy from Japan and Korea.

As a resource rich country, Malaysia was relatively richer than Korea before 1980. However, Korea started to catch-up to Malaysia in early 1980s, and

continued to move forward rapidly, surpassing Malaysia in the mid-1980s. This caught the attention of the Malaysia government that wanted to understand the development model of Korea. Due to the similarities in the development models of Japan and Korea, Malaysia's former Prime Minister, Mahathir bin Mohamad, thought that something could be learned from these two countries and consequently initiated the "Look East Policy" from mid-1980s. The aim of the "Look East Policy" was to look Japan and Korea as the preferred sources for industry development experience, technology, and management systems. Mahathir realized the need to develop technology intensive industries; and therefore some Japanese and Korean industry development models were hastily implemented in Malaysia. In particular, Malaysian government sought to replicate the successes of the car industry and steelmaking industry. But, after almost 30 years of development, Malaysia has yet to achieve the successes of Korea. Malaysia's national industry projects, particularly the steelmaking and automotive industry, have not only failed to become export-oriented industries, but have run at a financial loss for many years.

However, Korea's development model is itself an imitation of Japan's industrial development model of the 1960s. Korea quickly duplicated Japan's success to become Japan's top rival in technology industries. Korea's steel industry, ship-making, automobile, and electronics industries have achieved the world class status in just four decades. Korea's new rival in these industries, China, has been also growing rapidly in these sectors over recent years. Chinese steelmakers, car makers and even electronic product makers have started to put

pressure on Korean industrialists. Coincidently, China, Japan and Korea are all from a similar cultural bloc and this may be behind the success of their technology development models. Malaysia belongs to different cultural bloc and this might explain why Malaysia has been unable to perform effectively with a similar industry development model. While there certainly are a number of factors contributing to the different outcomes of Korea's versus Malaysia's economic development models, this study intends to investigate the issue from the perspective of cultural factors.

While this paper focuses on South Korea as an example of a successfully reformed East Asian economy, the modernization of Japan's and Taiwan's economies tell a similar story. Under the ideology of nationalism, the collective energies of the Japanese, Korean, and Taiwanese people were mobilized to commit themselves to industrial work and to changing long held cultural norms (Kim and Park 2003). Their stories tell us about the role of cultural factors in these countries' economic modernization. A Korean intellectual Ham Sok Hon (1961, p. 31 cited Kim 2004) reported, "Historically, the fundamental cause of the Korean people's suffering was due mainly to the weakness of their national character and the only way to change the national character was to have a people revolution." According to Ham, the revolution of the national spirit was necessary to build a whole new Korea. Rather than looking for solutions in specific problems area of the economy, Ham called for an all-out national awakening movement. Ham (cited Kim 2004) states that:

> …Men are the servants of a systems, of a "value system" framework, because they are social beings…although men create the social framework, it also in turn create men… if anyone desires to form newborn babies into a new people, one must first of all change the whole framework of society (p.31)…

The call for a people's revolution to rebuild the national spirit was incorporated into the Park Chung Hee's reform agenda. The "Human revolution" campaign of Park has significantly impacted Korean's modernization process. When Park Chung Hee assumed the mantle of national leader of Korea in the early 1960s, he emphasized the imperative to transform the Korean mentality by setting the culture toward the industrialization path. Park Chung Hee (1970, p. viii) stated:

> …the fault does not always lie with the institution itself; it lies rather with the individuals who comprise and operate the institution…in every common destiny the basic unit are the individuals. Consequently, no matter how much the institution is modified and its apparatus reorganized, it will be the same story all over again as long as the individual who operate the system remain unchanged. It is for this reason that we call for "human revolution"…

As to whether Korean culture has played a significant role in helping Korea to succeed against all odds, Chung Ju-yong, the Hyundai Group's founder, responded that:

> …the Korean people are diligent, honest, responsible, and intelligent. They are enthusiastic and committed when properly motivated. The secret success of Hyundai is because of our people. Our people are the greatest in the world; they succeed wherever they go…An economy based on human endeavor will continue because human creativity is limitless. This is the lesson of Korea and the lesson of Hyundai (Chung Ju Yong cited Steers 1999, p. 231)…

Chung believed that successful entrepreneurial traits could be developed in any culture assuming that a genuine commitment to accomplish great things existed. Chung elaborates, "any business or, for that matter, any culture can succeed if its leader can instill these characteristic in their people" (cited Steers 1999, p. 231). Chung attributed Korea's success to a culture of five thousand years of accumulated wisdom and knowledge. Several studies also argued that economic political system are embedded in system of common values, which may form the way in which organizations; institutions and the political system are organized (Inglehart 1997; Hofstede 2001). Therefore, this study intends to examine the relationship between cultural values and national competitiveness, with a specific focus on South Korea and Malaysia, in order to better understand the role of cultural factors.

1.1 Objectives of This Study

The objective of this study is to investigate the role of cultural values in influencing a nation's development, particularly competitiveness. This study aims to examine the relationship between national competitiveness and other cultural values by conducting statistical tests across many countries, and to support this general pattern with specific country studies of South Korea and Malaysia. Not only is the general pattern of economic cultural relationships investigated, but also is a more in-depth investigation of the two identified countries undertaken. Note that the objective of this paper is not to argue that cultural factors act alone without other supporting political economic conditions, but to identify which cultural values have a significant relationship with national competitiveness, and to describe how the values affect national competitiveness.

Another objective of this paper is to empirically assess the role of cultural factors in East Asia's prosperity, particularly in the specific country studies of Korea and Malaysia. Although many scholars have attempted to link Asia's economic growth with cultural values, most theories have been restricted to the Confucian-capitalism hypothesis. This debate has remained a purely academic one with little empirical research. This study forgoes an investigation of Confucian or Asian values to use a cultural dimension model which is more comprehensive and wide-ranging, and which allows for other cultural blocs to be analyzed as well. Hofstede's cultural model is the most widely used and

commonly cited national framework of culture. Moon and Choi's (2001) OUI[1] cultural model highlights the importance of Individualism, Uncertainty Avoidance, and Openness. This study uses a model similar to the OUI, but with modifications made to the measurement of each dimension with a different data set. The overall objectives of this study are as follows:

i. To study the general pattern of relationships between cultural values and national competitiveness,

ii. To investigate how cultural factors explain the differences in achievement between Korea and Malaysia, despite Malaysia having tried to learn from the development experiences of Korea and Japan since the mid-1980s,

iii. Provide a comprehensive investigation of the links between cultural factors and competitiveness by testing correlations across many countries, including specific country studies of Korea and Malaysia.

1.2 Significance of This Study and Its Uniqueness.

To investigate the link between cultural values and the economy, a number of existing studies (e.g. McClellan 1961; Hofstede 2001; Inglehart 2005; House, Hanges, Javidan, Dorfman and Gupta 2004) had used vast whole country samples to conduct correlation analysis across many countries. These studies suggested important relationships between economic competitiveness and

[1] OUI stands for Openness, Uncertainty Avoidance and Individualism

cultural values, but did not explain the links in detail. This study, however, not only aims to identify the general pattern of relationships, but also to conduct an in-depth study through qualitative research methods through a comparative study of two countries, Malaysia and South Korea. With specific case studies of Korea and Malaysia, this study explains why Malaysia has been unable to move up the industrialization ladder to become an innovative advanced economy from the cultural perspective. This study investigates how cultural differences have resulted in different levels of achievement difference for both countries, and finds that an industrialist spirit is a prerequisite for a development model to work effectively. Simply mimicking the development model of another nation or investing money does not guarantee a success without cultural support.

In comparison to other studies, there are many studies that discuss the relationship between Asian values, Confucianism, and East Asian economic growth (e.g. Hofstede and Bond 1988; Kim 1994; Tu 1996), which aim to explain why the four Asian economic giants, Taiwan, South Korea, Hong Kong, and Singapore, had successfully transformed themselves into industrialized economies within a short period of time. Nonetheless, the Confucianism-capitalism argument and the role of Asian values have received a lot of criticism too. This study does not investigate the relationship between culture and the Asian economy from the Confucian perspective, but uses the cultural dimensions model, which is far more comprehensive. Furthermore, Malaysia and Korea are located in different cultural zones, thus the concept of "Asian values" is too broad and meaningless in reality. Existing studies have often simplified Asian

values to Confucian values. However, the South East Asian Austronesia peoples, of which the Malays are included, do not belong to the Sinic-Confucian group. Thus, this study takes a more comprehensive approach by comparing two different cultural zone countries (i.e. Confucian Asian vs. Islamic South East Asian) in East Asia.

Another difference between this and many other studies is the research methodology. To make a more practical comparison between South Korea and Malaysia, this study uses a number of dimensions from Hofstede's cultural dimension model and adds other dimensions derived from Moon and Choi's (2001) OUI model. Hofstede's original cultural model comprised five dimensions (i.e. Individualism-Collectivism, Uncertainty Avoidance, Power Distance, Masculinity-Femininity, and Long term vs. Short term Orientation). However, this study uses only two dimensions from Hofstede's model; Individualism, and Uncertainty Avoidance. The Openness dimension, which is derived from Moon and Choi (2001), was added as a third dimension to this study's model. Although this study uses the same dimensions as suggested by Moon and Choi (2001), this study uses a different data set and measurement for each dimension. Due to the differences in data sets, the definition and sub-values for each cultural dimension are necessarily different from Moon and Choi (2001). In Moon and Choi's (2001) OUI model studies, the data for the cultural variables were obtained from the IPS National Competitiveness report, which are mostly statistical hard data. However in this study, the data for the cultural variables were obtained from the World Values Survey. In addition, Moon and Choi (2001) used a single competitiveness

index and GDP per capita as the performance variable; whereas this study tests a few areas of competitiveness with cultures. The measures of competitiveness tested in this study include the innovation index, R&D investment, academic performance, and FDI inflow. In addition, the relationship of GDP per capita with cultures was also tested. In comparing to existing studies, Moon and Choi (2001) provided a more comprehensive study by testing the cultural relationship with a single performance index (e.g. the Individualism-National competitiveness index). However, this study provides a more in-depth examination of the linkage between specific competitiveness areas and culture, for example, Individualism-Innovation and Openness-FDI inflow. In addition to the general statistical test, the theoretical findings of the quantitative part of the study have been applied to the case studies of Korea and Malaysia.

CHAPTER 2: LITERATURE REVIEW

Among scholars supporting the importance of cultural factors in economic progress, Max Weber, a Germany sociologist and political economist, is one of the earliest sociologists to relate economic development with cultural variable. His view on the relationship between Protestantism and capitalism development has profoundly influenced economic cultural studies. In his essay- *The Protestant Ethic and the Spirit of Capitalism*, which was published in 1905, he argued that the development of in Western Europe is attributed to Protestantism.

According to Weber, one of the universal tendencies that Christians had historically fought against was the desire to profit. Protestantism produces a new kind of businessman, one who aimed to live and work in a certain way, concerning for effective working practices and material benefit. Weber (1905) also noted that societies having more Protestants were those that have a more developed capitalist economy. He demonstrated his views by using Western Europe and Eastern Europe as an example. He argued that Western Europe which is dominated by Protestantism is more capitalistic compared to Eastern Europe that is dominated by the Catholics. Protestantism spirits that favors the rational pursuit of economic gain encourages entrepreneurship and link to the growth of industrialization. Argument of Max Weber has generated keen interest among academician to study economic cultural relationship.

To explain the cultural factors that differentiate those nations which have grown more rapidly from those which have grown more slowly, McClellan (1961) argued that the achievement motivation degree of a society plays a significant role. Studies by McClelland (1961, p. 201) showed that high achievement oriented society performed stronger economic growth. By analyzing the values taught in children's story books, McClelland (1961) calculated the number of achievement characteristics per story for each country and used it as a measurement of achievement orientation index in a society. McClelland (1961) suggested that if the Achievement level is high, the society will most probably has more people who behave like entrepreneurs, acting to produce more than they can consume which drives wealth growth (p.65).

The book by Harrison (2000) entitled *Underdevelopment is a State of Mind-The Latin American Case*, demonstrates that in most Latin American countries, culture has been a primary obstacle to development. Harrison's analysis generated a storm of objection from economists, experts on Latin America, and intellectuals in Latin America. In the following years, however, people in all these groups began to see elements of validity in his argument (Huntington 2000). Harrison (2000) argued that investigating the wealth of a nation without looking at the cultural factors cannot explain the phenomena of multicultural countries in which some ethnic groups do better than others, although all operate with the same economic signals. Examples are the Chinese minorities in Thailand, Malaysia, Indonesia, the Philippines, and the United States; the Japanese

minorities in Brazil and the United States; the Basques in Spain and Latin America and the Jews wherever they are (Harrison 2000). However, Harrison also agreed that culture is difficult to deal with both politically and emotionally. It is difficult to deal with culture intellectually because there are problems of definition and measurement and because of the cause-and-effect relationships between culture and other variables like policies, institutions, and economic development run in both directions (Harrison 2000).

Porter (1990) stated that 'differences in national values, culture, economic structures, institutions, and histories all contribute to competitive success of a nation'. Porter (2000) acknowledged that the role of culture in economic progress is unquestioned, but interpreting this role in the context of other influences and isolating this independent influence of culture is challenging. In Porter's competitiveness Diamond model, cultural variable is not incorporated as the main pillar although he admitted the importance of cultural as a factor. Porter (2000, p. 15) argued that the same cultural attribute can have vastly different implication for economic progress in different societies or even in the same society at different times. For example, frugality served Japan well until its recent prolonged recession; now it is an obstacle to recovery. Therefore, there are no standard "cultural values" that can be applied to all for enhancing competitiveness.

In Hofstede's research (1983), Individualism/Collectivism cultural dimension performs a strong association with wealth performance. From 1970-

1971, through channel of IBM, Hofstede collected 116,000 questionnaires from IBM's employees across 50 countries when he was working in the IBM. One of the crucial results of the study is that wealthy countries are more individualistic and poor countries are more collectivistic. Very individualistic countries are the U.S, Great Britain and the Netherlands while all the poor countries are collectivistic with a larger power distance (Hofstede 1983). Another cultural dimension that associates with economic growth is Long term/Short term Orientation. The Confucian cultural bloc countries like China, Hong Kong, Taiwan, Japan and South Korea take the top five positions for the score index of Long Term Orientation. Thrift and persistence are the two main values of Long term Orientation. Development economists have been most interested in Individualism and the Long term orientation dimension (Hofstede 2001). However, Hofstede and Bond (1988) also stated that the causal relationship between Individualism and economy is from economy to Individualism and not from Individualism to economy.

Ronald Inglehart, the main coordinator of the World Values Survey, argued that there is a powerful link between cultural values and political economic development level of nations. Inglehart (2005, p.50) claims that cultural change is not linear, but it occurs after reaching a certain development stage. In Inglehart's (2005) study, wealthy nations share similar cultural values such as self-expression which relates to individualism. Modern nation emphasize more on materialist values while postmodern nation emphasize more post-materialist

values. The materialist values and post-materialist values of Inglehart are quite similar to Hofstede's Masculinity-Femininity cultural dimension. In Inglehart's study, developing nations have stronger survival values which concern more with material needs of advanced nations or post-modern nations pay more attention to spiritual need and nonmaterial concern, such as freedom and environmental concern (2005, p.30). In knowledge society, productivity depends less on material constraints than on ideas and imagination (Inglehart 2005). This creates a climate of intellectual creativity and stimulation in which spiritual concern again become more central. Inglehart's World Values Survey (2005) suggested that advanced nations, such as those in Western Europe, New Zealand, Australia and U.S.A stress more on self-expression values and post-materialist values. Inglehart's study provides very strong guidance in understanding the values changes for different stage economic development. For newly industrialized countries, materialist and survival values play significant roles in economic growth while self-expression and post-materialist values are more dominant in knowledge-based and innovation driven economies.

Shane (1993) investigated the effect of the cultural values on nation innovation rates, and found that there is a powerful relationship between culture and innovation. Shane (1993) examined the effects of Individualism, Power Distance, Masculinity and Uncertainty Avoidance on national rates of innovation in 33 countries in 1975 and 1980. The research suggests that nation may differ in their rates of innovation because of cultural values of their citizens. He argued

that countries may not be able to increase their rates of innovation simply by increasing the amount of money spent on research and development or industrial infrastructure. They may need to change the values of their citizens to those that encourage innovative activity.

Studies of Granato, Inglehart and Leblang (1996) suggested that cultural attitudes toward achievement have a positive effect on economic growth. GLOBE project by House et al. (2004) also supported performance oriented culture, achieving better wealth and economic prosperity. Other influential scholars in this area of study such as Landes (2000) also stated that if we learn anything from the history of economic development, it is culture that makes almost all the difference.

2.1 Existing Debates about the Roles of Cultural Factors in Four Asian Dragon's Growth

Rapid industrialization of East Asian countries from the 1970s through the 1990s has generated academician's interests in attempting to find out the factors attributed to the success of East Asia. One of the most exciting areas of study has to do with the proper identification of the cultural factors in the process of economic development (Hsiao 1988). Against this background of economic growth in East Asia, particularly the four Asian tigers- Korea, Taiwan, Singapore and Hong Kong and recent fast growth of China, some Western scholars have argued that cultural factor does play some roles in East Asian economic progress.

For instance Huntington (2000) commented that culture plays a significant role in the development process of South Korea. Huntington (2000) asserted that values of thrift, diligence, education and discipline contributed to the growth of the Korean economy. Huntington (2000) commented that;

> …In the early 1990s, I happened to come across economic data on Ghana and South Korea in the early1960s**,** and I was astonished to see how similar their economies were then. These two countries had roughly comparable levels of per capita GNP; similar divisions of their economy among primary products, manufacturing, and services; and overwhelmingly primary product exports, with South Korea producing a few manufactured goods. Also, they were receiving comparable levels of economic aid. Thirty years later, South Korea had become an industrial giant with the fourteenth largest economy in the world, multinational corporations, major exports of automobiles, electronic equipment, and other sophisticated manufactures, and a per capita income approximating that of Greece. Moreover, it was on its way to the consolidation of democratic institutions. No such changes had occurred in Ghana, whose per capita GNP was now about one-fifteenth that of South Korea's. How could this extraordinary difference in development be explained? Undoubtedly, many factors

> played a role, but it seemed to me that culture had to be a large part of the explanation. South Koreans valued thrift, investment, hard work, education, organization, and discipline. Ghanaians had different values. In short, cultures count (Huntington 2000, p. xiv)…

To explain the rise of industrial East Asia, Tu (1989) argued that the role of Confucian ethic underlying the East Asian society is important. Tu (1989, p.83) pointed out that, "the basic ethical concepts and values system of East Asia's newly industrialized countries (China, Japan, Korea) are similar, for example, all showing a strong emphasis on family solidarity, filial piety, subordination of the individual to the group, hard work as a value in itself, frugality, and education as morally uplifting and as the proper road to personal and family success. East Asia has been in the past and still is in many ways every bit as much of a cultural unit as is the West" (Tu 1989).

Thus, to understand the dynamic growth of East Asia, inquiry into its relationship with Confucianism is necessary. Tu argued that the modern West as a phase of human civilization urgently requires enlightened re-examination since Confucianism also functions very well in the modernization process. The rise of industrial East Asia, as a form of modernization, has not been associated with the Western individualism, which many western scholars emphasized the roles of individualism in the industrialization process (Tu 1989).

Study by Hofstede and Bond (1988) also found that Confucian values such as saving and perseverance contribute to the growth of the four Asian dragons. Based on statistical analysis on the relationship between Confucian values and economic growth, Hofstede and Bond (1988) found that all the fast growth Asian economies have shown long term orientation values (which are similar to Confucian values as Hofstede argued). Sakong (1993, p. 205) also pointed out that Confucian cultural heritage play significant role in Korea's development, particularly in the policy formulation and implementation. Values of hierarchy, loyalty and harmony have been highly valued in the Korean society and these have increased the effectiveness of policy implementation under a strong leadership (Sakong 1993).

However, Michael Porter has different views on the issue of cultural roles. Porter (2000, p.15) argued that the same cultural attributes can have vastly different implication for economic progress in different societies or even in the same society at different times. Porter provided example of Japan and argued that frugality serves very well for Japan until its recent prolonged recession; but now it is an obstacle to recovery. However, this "frugality" argument is not proven empirically. However, Paul Krugman also argued that Japan's economic problem is an example of liquidity trap, a situation where consumers and firms saved too much overall, thereby causing the economy to slow. Although the Japanese government has implemented zero interest policy for many years, Japan is still unable to get rid of deflation problem where people are not willing to spend. Nonetheless, the recent change in Japanese foreign exchange policy by making

the Japanese Yen cheaper has successfully enhanced Japan's growth, thus whether the "frugality" factor has been the growth's obstacle has yet to be determined.

Indeed, argument about Confucian-capitalism hypothesis highlighting the value of thrifts and hard work has generated a storm of protest from Asian economists, intellectuals and academicians. Lawrence Law (in Wong 1996) pointed out that argument about Confucian-capitalism hypothesis is often a tautology with weak explanatory power. Korean scholar-Cha Seong Hwan (2003) also shares similar view. Cha (2003) stated that many Korean scholars who support the Confucian-capitalism hypothesis are basically expressing their views on exaggerated assertions made by certain foreign scholars and journalists such as Tu and Aikman, without going through a process of verification. Cha (2003, p.494) pointed out that most of those who advocate Confucian capitalism begin their research with serious misunderstanding and a biased attitude with regard to Max Weber's study on capitalism and the economic ethics of world religions.

Another Korean scholar- Kim Kyung Dong (1994, p. 96) also argued that Confucianism of any kind, whether orthodox or reform-minded, historically was not the spiritual source of inspiration for indigenous transformation to capitalist development. Neo-Confucianism, the main philosophical teaching in Korean traditional society, does not stress the values of frugality, diligence, hard work, self-sacrifice or even some form of rationality like what other scholars suggest (Kim 1994). Stress on loyalty to group and company is affected strongly by military culture and not necessarily derived from Confucian teaching alone (Kim

1994). Kim argued that at the peak of the Neo-Confucianism era during the Choson dynasty in Korea, business sector was underdeveloped and traders were seen as "petty man", a great man is to pursue virtues and not wealth. Traders and business peoples were the low class people who were only concerned with self-benefit and material wealth. This concept had impeded the growth of business and economy during the Choson dynasty. Instead, the core values of Confucianism are benevolence, virtues and harmony human relationship which related closely to social order, which is quite feminine. If there was a single most important cultural factor that actually helped economic growth, it was certainly not Confucianism but nationalism as argued by Kim (1994). In fact Tu (1996), who demonstrated that Confucian culture played significant roles in the growth of East Asia, also admitted that academicians were at a loss to identify and defined how Confucian ethics actually worked in economic organization, political ideology, and social behavior.

Besides Confucianism capitalism hypothesis, there were Asian scholars who discussed the issue of cultural factors from the nationalism approach. For instance, Moon (1998) argued that nationalism serves as the motivating factor to push Korean to work hard for the nation. Success of Korea is not only a national pride but also the pride of an individual Korean. Nationalism pushes for collectivism and promotes self-sacrifice spirit. This has created a disciplined and hardworking workforce which has contributed to the success of industrialization. Kim and Park (2003) also demonstrated that strong nationalism played a major

part in the economic modernization and industrialization of Korea, especially as an ideological source for mass mobilization.

Overall, many studies have supported the proposal that culture counts for the success of Korea, and their studies focused on Confucianism and nationalism factor. However, this study is not designed to seek whether Confucianism contributes to the productive culture of Korea; this study examines the link between cultural values and national competiveness as a whole, including non-Confucian values, in comparison with Malaysia.

2.2 A Review of Existing Cultural Models

Scholars have come forth with various cultural models to show how cultural differences affect business competitiveness, and the majority is at organizational level. Organizational behavior, organizational culture and business/corporate culture are important management areas in human resource management. Cross-cultural management is gaining importance in today's highly globalized world with the expanding activities of multinational companies from the East to the West.

In cross cultural studies, Hofstede's (1983) cultural dimensions of Individualism-Collectivism, Power Distance, Uncertainty Avoidance and Masculinity-Feminity have served as the foundation in the cross-cultural management field since early 1980s. Hofstede added several new dimensions in later time, namely Long term vs Short term orientation. Hofstede's finding was

one of the earliest studies that calculated the statistical relationships between cultural dimensions. However, Hofstede did not study the interaction between the various cultural aspects and economic achievement in detail as he was working to establish the foundation for cross-cultural management studies. The aim of his study is to compare the cross-cultural values within an organized framework. The cultural dimensions model created by Hofstede is very useful in explaining the cultural differences between different countries and ethnics, which making Hofstede's work the most cited paper in social sciences. In a comprehensive analysis of national culture, he tapped the interface between national cultures and organizational culture. Hofstede (1983) defined culture as the '…collective mental programming of the people of an environment." Every person's mental programming is partly unique, partly shared with others. He labelled dimensions of basic cultural values. Among the cultural dimension, Individualism-Collectivism as the most important dimension that has shown the crucial link with economic performance (Hofstede 1983). Hofstede's research result shows that Individualism is highly related to the wealth of countries. This finding is consistent with Inglehart's study (2005), which suggested that post-modernized society expresses more self-expression values.

Another renowned cross-cultural research project, - GLOBE, which was conducted by the House et al. (2004), has contributed to the newest cultural dimension model. In the book entitled Culture, Leadership and Organizations, edited by House et al. (2004), the cross cultural study on 62 societies is published, which aimed to investigate the relationship between values, practices, leadership

and firm performance. The GLOBE project involved 170 researchers from 62 cultures, with survey data from 17,300 managers in 951 organizations.

The cultural dimension model developed by the GLOBE consist of nine dimension, namely Power Distance, Uncertainty avoidance, Societal Collectivism, In—group collectivism, Assertiveness, Gender egalitarianism, Future orientation, Performance Orientation and Humane Orientation. The first six cultural dimensions had their origins in the dimensions of culture identified by Hofstede (1980). The dimension of Future Orientation is similar to Hofstede's Long Term vs Short Term Orientation; while the Assertiveness, Gender Egalitarianism and Humane Orientation is similar to Masculinity vs Femininity dimension of Hofstede. Although many of the dimensions overlapped with Hofstede's cultural model, however the definition and interpretation for each dimension is slightly different.

According to House et al. (2004), Power Distance is defined as the degree to which members of an organization or society expect and agree that power should be unequally shared. Uncertainty Avoidance is defined as the extent to which members of an organization or society strive to avoid uncertainty by reliance on social norms, rituals, and bureaucratic practices to alleviate the unpredictability of future events. Collectivism I: Societal Collectivism reflects the degree to which organizational and societal institutional practices encourage and reward collective distribution or resources and collective action. Collectivism II-In-group Collectivism reflects the degree to which individuals express pride, loyalty and cohesiveness in their organizations or families. Gender Egalitarianism is the

extent to which an organization or a society minimizes gender role differences and gender discrimination. Assertiveness is the degree to which individuals in organizations or societies are assertive, confrontational, and aggressive in social relationships. Future Orientation is the degree to which individuals in organizations or societies engage in future-oriented behaviors such as planning, investing in the future, and delaying gratification. Performance Orientation refers to the extent to which an organization or society encourages and rewards group members for performance improvement and excellence. Finally, Humane Orientation is the degree to which individuals in organizations or societies encourage and reward individuals for being fair, altruistic, friendly, generous, caring and kind to others.

GLOBE's nine cultural dimensions were conceptualized in two ways: practices or "as is," and values or "should be." Based on the GLOBE's finding, they find that dimension of Uncertainty Avoidance, Future Orientation and Performance Orientation has significant relationship with economic prosperity of a society. Nonetheless, the problem with GLOBE's project is that the research results of "values" and "practice" are contradictory.

Another study by Trompenaars and Hampden-Turner (1998) examined the relationship between cultural values and business performance aimed to suggest human resource management guidance to international managers, on how to manage different cultures effectively. To obtain raw value data, they conducted surveys involving 50,000 respondents from 100 countries; however, only 30,000 cases from 55 countries were used as valid data. To compare the values

differences from 44 countries, Trompenaars and Hampden-Turner (1998) developed a cultural dimension model consisting seven dimensions, namely Universalism vs. Particularism; Individualism vs. Collectivism; Neutral vs. Affective; Specific vs. Diffuse; Achievement vs. Ascription; Time (sequential vs. synchronous); and Environment (internal vs. external control).

According to Trompenaars and Hampden-Turner (1998), Universalism vs. Particularism was defined as whether a culture is based on rules and standards or relationship and trust. This dimension is similar to the Uncertainty Avoidance dimension by Hofstede. Individualism vs. Collectivism measures whether a culture focuses more on the group or individual. Neutral versus Affective measures whether the person within a culture expresses one's emotion openly or not. Specific versus Diffuse demonstrates whether the public and private life is closely linked or not. Achievement versus Ascription measures whether a culture rewards one according to one's performance or to one's age, status, or gender. These four dimensions are similar to Hofstede's Individualism versus Collectivism dimension. Other dimensions that are not included in Hofstede's model are the Time and Environment dimensions. The Time dimension (Sequential versus Synchronous) measures whether people tend to do one thing at a time or several things at once. The Environment dimension (Internal vs. External Control) measures whether people can control or should harmonize with nature. In brief, except the Environment and Time dimensions, the other six dimensions are similar to Hofstede's cultural dimension. The dimensions of Universalism versus Particularism overlaps with Hofstede's Uncertainty

Avoidance dimension, while the Individualism versus Collectivism, Neutral versus Affective, Specific versus Diffuse, and Achievement versus Ascription is similar to Hofstede's Individualism versus Collectivism dimension.

Kluckhohn and Strodtbeck (1961 cited Hills 2002) also developed a cultural model that categorizes values orientation in five dimensions. The first dimension is about time orientation, which explains what aspect of time we should primarily focus on – the past, present or the future? The second dimension is about the relationship between human and nature, it explains whether human master nature, submission to nature or harmony with nature? The third dimension is about how individuals should relate with others, either hierarchically, as equals or according to individual merit? The fourth dimension is about motivation, either to express one's self (being), to grow (being-in-becoming) or to achieve? The fifth dimension explains the nature of human being, good, bad (evil) or a mixture of good and bad? The theory developed by Kluckhohn and Strodtbeck (1961 cited Hills 2002) is also widely used in cross-cultural studies.

Another multinational business firm study conducted by Perlmutter (1969), categorized multinational firm's management culture into three types, which were named the EPG Profile. Perlmutter (1969) presented several variables that focused on the primary attitudes of international executives, allowing an understanding of how various cultural aspects affect the success and failure of a multinational corporation. The EPG Profile consists of three dimensions - Ethnocentricity (home-country orientation), Polycentricity (host-country orientation), and Geocentricity (world-orientation). According to Perlmutter,

geocentrism is the ideal type of attitude that executives should have for growth and success and ethnocentrisms should be avoided.

In an extension to Hofstede model, Moon and Choi (2001) developed an OUI model. The study is based on the statistical relationship tests across 68 countries, examining the relationship between cultural values and competitiveness. Based on the study, Moon and Choi (2001) argued that Individualism is not the only cultural dimension that associates positively with economic growth but the Openness and Uncertainty Avoidance dimensions are also highly related to the wealth of a nation. The study argues that if a nation/ethnic/company aims to be more competitive, they should transform their culture to become more individualistic, open and uncertainty avoidance-oriented (Moon 2004). Moon (2004) argued that Individualism should be at the final stage of development to promote innovations, as evidenced in Japan and Korea in particular. In addition to the OUI model, Moon (2012) developed another theoretical framework – the ABCD model which explains the key success factors of Korea. The ABCD model consists of four components, namely Agility, Benchmarking, Convergence and Dedication. Among the four components, Agility and Dedication are the two components highly related to culture, which demonstrate the important role of speed, precision, diligence and goal-orientation in Korea's development experiences. The following Table 2.1 summarizes the existing cultural dimension model.

Table 2.1 Selected models of cultural dimensions

Hofstede (2001)	Trompenaars and Hampden-Turner (1998)	House et al. (GLOBE) (2004)	Moon and Choi's (2001) OUI Model	Kluckhohn and Strodtbeck (1961)
Individualism-Collectivism: Relative importance of individual vs group interest in society *Uncertainty Avoidance*: Extent to which people feel threatened by uncertain or unknown situations. *Power Distance*: Beliefs about the appropriate distribution of power in society. *Masculinity-femininity*: Material possessions vs quality of life, of achieving something visible and big vs modesty, fast vs slow. *Time orientation*: Long-term vs short-term outlook on work and life. Importance of saving,	*Universalism-particularism*: The degree to which rules are uniformly or situational applied. *Individualism-collectivism:* Do people derive their identity from within themselves or their group? *Specific vs diffuse*: Are an individual various roles compartmentalized or integrated? *Neutral vs affective*: Are people free to express their emotions or are they restrained. *Achievement vs ascription*: How are people accorded respect and social status? *Time perspective*: Do people focus on the past or the future? *Relationship with environment*: Do	*Power Distance*: Degree to which people expect power to be distributed equally. *Uncertainty Avoidance*: Extent to which people rely on norms, rules, and procedures to reduce the unpredictability of future events. *Humane Orientation*: Extent to which people reward fairness, altruism and generosity. *Institutional Collectivism*: Extent to which society encourages collective distribution of resources and collective action. *In-group collectivism:* Extent to which individuals express pride, loyalty and cohesiveness in	*Individualism* The degree to which a person is given responsibility and reward for performance on an individual basis. *Uncertainty Avoidance*: The degree to which people in a country prefer structured situations to unstructured ones. Disciplinism and frontierism are the sub-variable of this dimension. *Openness:* The degree to which people are willing to accept and change according to need, both outbound and inbound, which related to Perlmutter's	*Time*: focus on the Past, present, or future *Humanity and natural environment*: mastery over the nature, or submission to nature or harmony with nature *Relation with other people*: hierarchical, equal(group consensus) or follow the merit(individual) *Motive for behaving*: Being(focus on self), being-in-becoming(valued by us), achievement(approved by ourselves and others) *Nature of human being*: Good, bad or mixture Inglehart (2005) Traditional vs. Secular-rational values and

planning and determination.	people control the environment or does it control them?	their organizations and families. *Assertiveness*: Degree to which people are assertive, confrontational and aggressive in relationships with others. *Gender egalitarianism*: Degree to which gender differences are minimized. *Future orientation*: Extend to which people engage in future-oriented behaviors such as planning, investing and delayed gratification. *Performance orientation*: Degree to which high performance is encouraged and rewarded.	EPG profile (Ethnocentric, Polycentric and Geocentric).	Survival vs. Well-being

CHAPTER 3: RESEARH METHODOLOGY

This study uses a combination of quantitative and qualitative research methodologies. In the quantitative component of the study, the statistical relationship between cultural value data and national competitive performance data is analyzed. A cultural dimension model, developed for the purpose of this study, provides a framework for the analysis. This cultural dimension model describes culture across three dimensions; Individualism, Uncertainty Avoidance, and Openness. A cultural dimension model helps to organize and categorize the cultural values in a more systematic way, which is important for analyzing the cultural issues using structured inferential statistical approaches.

To study the relationship between the cultural values and national competitiveness, the source cultural value data was obtained from the World Value Survey (WVS) (2005 – 2009). The WVS provides high quality national level value data from a large number of countries. Performance data, including levels of innovation, R&D investment, academic/educational performance, FDI inflow, and trade openness was obtained from various sources, including the World Bank's World Development Indicator, World Intellectual Property Organization (WIPO), United Nations Conference on Trade and Development (UNCTAD), and other international organizations.

In addition to the quantitative analysis relying on a vast sample size, specific country studies of South Korea and Malaysia have also been conducted. Given the primary purpose of this study is to investigate East Asian values and their

influence over national competitiveness, South Korea and Malaysia were chosen as for comparison purposes. South Korea represents an advanced East Asian Sinic Confucian economy, while Malaysia was chosen as being representative of a South East Asian culture and developing economy. Several methods could be used to study cultural values. The most common one is by conducting survey and interviews. Table 3.1 below summarizes the main methods used to study organizational and societal cultures.

Table 3.1 Methods of studying culture (society and organization)

From outside	From inside
• Organization specific and literature • Microeconomic statistics, annual reports • Historical information on the company • Face to face interviews • Surveys, instruments, questionnaires • Watching, listening, interacting • Documented biographies of founders, role models • Press cuttings, printed matter, publications • Advertising jingles	• Unstructured interviews and interpretation of symbols, shared values and practices(company observances and personal experiences) • Listening to what members of different age levels are saying about how they do things • Reading and analyzing company's documents and speeches of leaders • Examining written and unwritten objectives • Identifying the skillful accomplishments (members and employees who are successful and the criteria used to evaluate them) • Reading what and how the company speaks of its values to others by oral and print matter, annual speeches, international publications, policy manuals, and training course content • Finding out the forms of greetings, stories, anecdotes, real power structures, how decision are made, how people spend time, types of furniture used, technology available and announcements on bulletin boards • Patterns of interaction between individuals) seniors, juniors, subordinates, peers and superiors) • Language used, especially specialized language and technical jargon • Identifying images and how they are used in conversation • Observing and reflecting the rituals of daily routine • Internalizing its values and engaging in its shared practices

Source: Abdullah (1996, p.48)

In addition to World Values Survey data, primary data were collected by searching documents, biographies and books written by nation leader, speech content and quotes (made by political and business leaders) and media reports (Malaysian, Korean national and international newspapers). Secondary data were collected from library research such as journal's and books' articles. In brief, method two and four as shown in the following table will be used as the main data collection method.

Table 3.2 Four available strategies for operationalizing constructs about Human Mental Programs

	Provoked	Natural
Words	1 Interviews Questionnaires Projective tests	2 Content Analysis of speeches Discussions Documents
Deeds (actions, non verbal behavior)	3 Laboratory Experiments Field Experiments	4 Direct observation Use of Available descriptive statistics

Source: Hofstede (2001)

3.1 Definitions of Terms

3.1.1 Definition of national competitiveness and existing studies

According to Porter (1990), a nation's prosperity depends on its competitiveness, which is based on the productivity with which it produces goods and services. Thus, the keyword of competitiveness' is "productivity". Porter (1990) stressed that capacity of a nation in innovation and creation of knowledge determines its level of competitiveness, not the inherited natural resources. Porter (1990) also mentioned a number of factors affecting a nation's competitiveness, such as government, labor, local market, economic structure and policies, domestic rivalry and home-based suppliers.

The father of modern economics - Adam Smith suggested that the free market system, specialization and the division of labor are significant at enhancing a nation's productivity and to generate better wealth. John Maynard Keynes, a British economist who established the Keynesian economic theory, believed that government intervention in the market is necessary to keep an economy stable and growing. Neoclassical economists emphasized investment in physical capital and infrastructure particularly for the factor-driven economies. Other mechanisms such as education and training, technological progress, macroeconomic stability, good governance and market efficiency are also significant factors in determining a country's productivity growth. In short, there are many determinants driving productivity and competitiveness.

The World Economic Forum, which publishes the global competitiveness index report every year, defines competitiveness as the set of institutions, policies and factors that determine the level of productivity of a country (The Global Competitiveness Report 2013, p.4). WEF demonstrates that the level of productivity set the level of prosperity that can be earned by an economy, which determines the rates of return obtained by investments in an economy, and a more competitive economy is likely to sustain growth (The Global Competitiveness Report 2013, p.4).

According to the WEF, the competitiveness index is calculated based on 12 factors, namely the quality of institution[2], infrastructure[3], macroeconomic environment[4], health and primary education, higher education and training, labor market efficiency[5], financial market development[6], technological readiness[7],

[2] Factors contributed to quality of institution include property right, corruption, judicial independence, wastefulness of government spending, burden of government regulation, efficiency of legal framework in settling dispute, transparency of government policy making, government provision of service for improved business performance, business cost of terrorism, business cost of crime and violence, organized crime, reliability of police services, ethical behavior of firms, strength of auditing and reporting standards, efficacy of corporate boards, protection of minority shareholders' interest, strength of investor protection.

[3] Infrastructure means by quality of roads, railroad infrastructure, port infrastructure, air transport infrastructure, available airline seat kilometers, electricity supply, mobile telephone subscription and fixed telephone lines.

[4] Factors contributed to macroeconomic environment include government budget balance, gross national saving, inflation, government debt, country credit rating

[5] Include cooperation in labor-employer relations, flexibility of wage determination, hiring and firing practice, redundancy costs, pay and productivity, reliance on professional management, brain drain and female participation in labor force.

[6] Include availability of financial services, affordability of financial services, financing through local equity market, ease of access to loans, venture capital availability, soundness of banks, regulations of securities exchanges and legal right index.

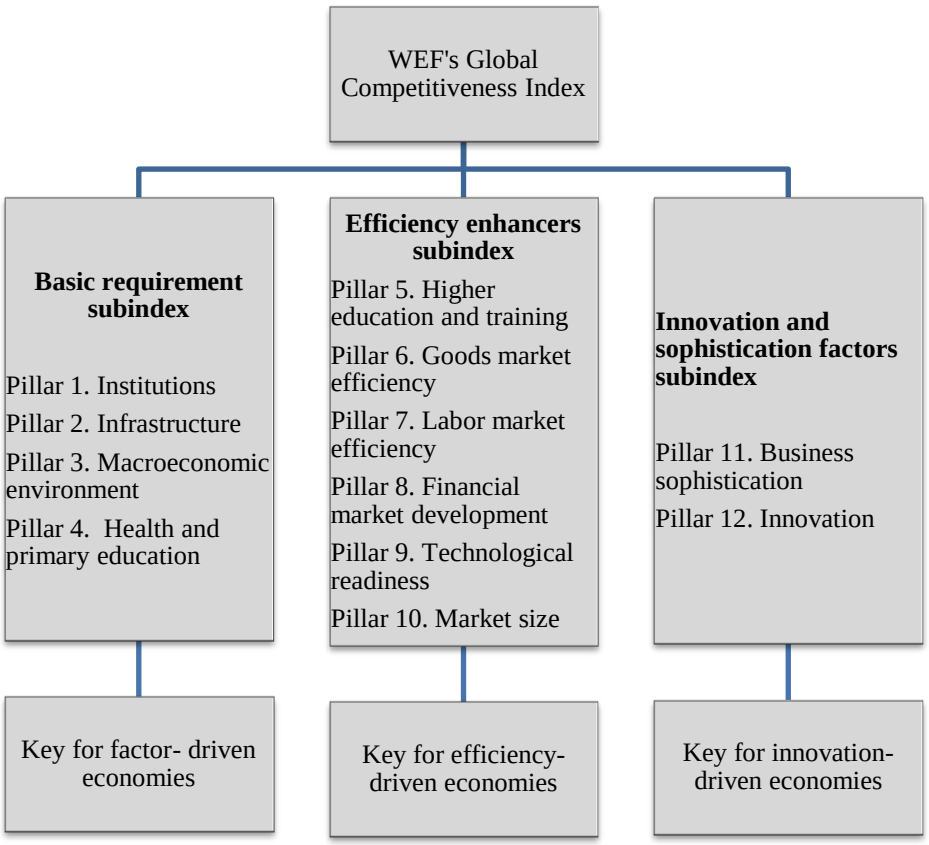
market size, business sophistication (business network and firm quality)[8] and innovation[9]. The first four pillars are very important for developing economies, which are the basic requirements for improving competitiveness at the initial stage of development, while the last two pillars - business sophistication and innovation, are the crucial factors for innovation-driven economies to sustain growth. Figure 3.1 below illustrates the main components in the construction of the global competitiveness index by the WEF. At present, the WEF competitiveness index is well known globally compared to other studies.

[7] Include availability of latest technologies, firm-level technology absorption, FDI and technology transfer, internet users, fixed broadband internet subscriptions, internet bandwidth and mobile broadband subscriptions.

[8] Include quantity and quality of local suppliers, state of cluster development, nature of competitive advantage, value chain breadth, control of international distribution, production process sophistication, extent of marketing and willingness to delegate authority

[9] Factors contributed to innovation include quality of scientific research institutions, company spending on R&D, university-industry collaboration in R&D, government procurement of advanced technology products, availability of scientists and engineers and PCT patent applications.

Figure 3.1 The Global Competitiveness Index framework by WEF

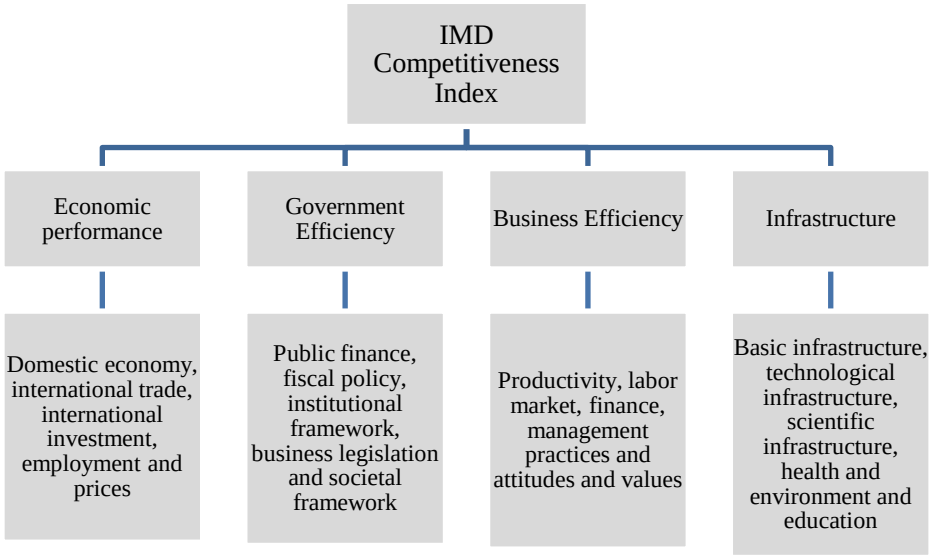


Source: The Global Competitiveness Report, 2014, p.9

The International Institute for Management Development (IMD), which publishes the World Competitiveness Yearbook every year, defines competitiveness as the ability of nations to create and maintain an environment in which enterprises can compete. According to IMD, the four main factors contributing to a nation's competiveness are economic performance, government efficiency, business efficiency and infrastructure. Five sub-factors under

economic performance are domestic economy, international trade, international investment, employment and prices. Sub-factors of government efficiency are public finance, fiscal policy, institutional framework, business legislation and societal framework. For business efficiency, the sub-factors are productivity, labor market, finance, management practices and attitudes and values. Sub-factors of infrastructure include basic infrastructure, technological infrastructure, scientific infrastructure, health and environment and education. In IMD's research methodology, hard criteria represent a weight of 2/3 in the overall ranking whereas the survey data represent a weight of 1/3. It is quite different from the World Economic Forum which mainly uses survey data for calculating index. The following Figure 3.2 illustrates the basic components of IMD competitiveness index.

Figure 3.2 IMD competitiveness index

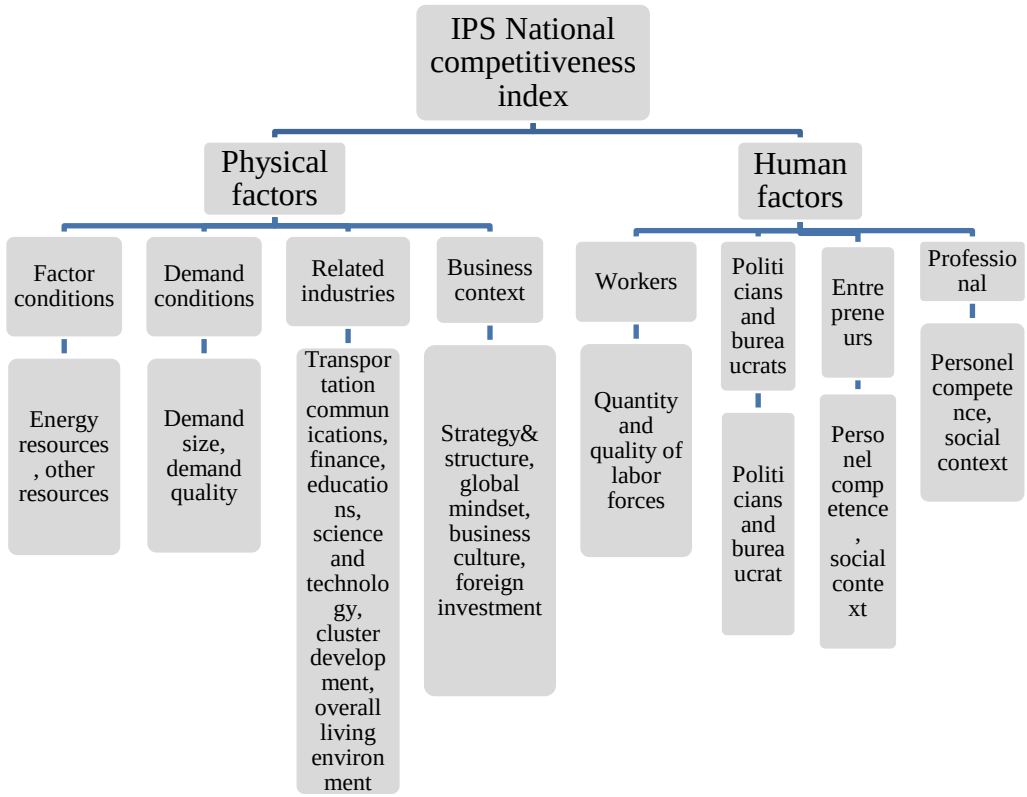


Source: IMD Organization, 2013

In addition to WEF and IMD, the Institute for Policy and Strategy (IPS) on national competitiveness based in Korea developed its own competitiveness index for more than 60 countries. The IPS argues that the existing studies which produced the world competitiveness index are unreliable and often flawed. IPS points out that the existing studies are not well equipped with the necessary theoretical knowledge in national competitiveness or research methodology. Thus, the Institute for Industrial Policy Studies (IPS) and the Institute for Policy and Strategy on National Competitiveness (IPS-NaC) have jointly published the "IPS National Competitiveness Research" since 2001. Based on Porter's diamond model, IPS developed a modified model for constructing national

competitiveness. According to the IPS's methodology, there are two main factors, namely physical and human factors. Sub-factors of physical factor are conditions, demand conditions, related industries and business context. Sub-factors of human factor are workers, politicians and bureaucrats, entrepreneurs, professional and final one is chance (events). Figure 3.3 illustrates the basic components of IPS competitiveness index.

Figure 3.3 IPS National Competitiveness Index



Source: Institute for policy and Strategy (IPS), Korea.

After having reviewed the related studies, this study defines competitiveness as a set of factors that determine the level of prosperity and quality of living of a country, such as innovation capacity, quality of, R&D spending and openness toward international trade and foreign investments. It is related strongly to economic performance, but slightly different because it includes non-economic activities such as education. If this study chooses

"economy" as the dependent variable, then GDP is the only measurement index as dependent variable in all the cultural dimension variable, it would restrict the scope and unable to investigate from different aspect. Since gross domestic production (GDP) is comprised of investments, consumption, government spending and net export, this study chooses the word "competitiveness" instead of "economy" in order to make this study inclusive and comprehensive. According to IMF (2012), GDP is defined as the total output of goods and services produced in a country in given period of time and often used as a measure of whether the average citizen in a country is better or worse off. However, IMF (2012) also pointed out that the GDP calculation methodology has its limit where not all productive activities are included in GDP. In addition, by looking at GDP alone, it is not enough to measure the overall standard of living or well-being of a country. For instance, the literacy rate, quality of education, freedom, clean environment, public order and safety are not captured in GDP, thus the GDP cannot reveal the general well-being of a nation.

Therefore, by using the word of "national competitiveness", non-economic variables could be included in the study, for instance educational performance. To look for the relationship between national competitiveness and cultural values, this study does not use a single index of competitiveness, but only selects a few sectors that are significant in representing a nation's competitiveness, such as innovation capacity (which is very significant for innovation driven economies and the key factor for improving productivity and income), R&D investment (which is significant to show the readiness and long term investment for future),

education performance (to show the quality of human capital), foreign direct investment inflow and international trade openness (to show the level of openness and its commitment towards the globalization today). Among the competitiveness area, innovation index is one of the most significant aspects since innovation is the foundation of economic prosperity and technological advancement; it is the key factor for middle income countries shifting to high income status.

Overall, this study examines the pattern of relationship between a culture specific dimension and certain aspects of competitiveness, for example the relationship between individualism and innovation, uncertainty avoidance and R&D expenditure. Each dimension of cultural values works differently with different aspects of achievement; therefore, a single competitiveness index is not used. For instance, individualism may work positively with innovation but not related to legal framework; openness may work significantly with trade and FDI but has no relationship with government spending and infrastructure. Therefore, this paper would only examine a culture specific dimension with a certain aspect of competitiveness. In addition, the global competitiveness index constructed by current studies (WEF and IMD) has drawn a lot of criticism and skepticism, making it less reliable to be used as a single measurement index of competitiveness. However, the relationship of each cultural dimension with GDP per capita also tested as additional test for examining the overall cultural relationship with economy.

3.1.2 Definition of cultural values

It is important to define the meaning of culture before going into details of analysis. The term "culture" has multiple meanings in different disciplines and different contexts. It is often used to refer to the intellectual, musical, artistic, and literary products of a society (Huntington 2000). However, this paper is not concerned with the full aspect of culture. The focus of this study is on cultural values, and their possible or potential effects on national competitiveness and growth.

There are many studies of the definition and function of cultural values. For instance, Hill (2002) defined cultural values as the central to human thought, emotions and behaviors which influence the attitudes and behaviors of group members. It determines the way in which a group of people solves problems and reconciles dilemmas. Hofstede (1983) suggested that culture is collective mental programming; it is that part of our conditioning that we share with other members of our nation, region, or group but not with members of other nations, regions, or groups. Husted (1999) defined cultural values as those conceptions of the desirable that are characteristic of a particular people. For Clyde Kluckholn, he defined culture as the collection of beliefs, values, behaviors, custom and attitudes that distinguish the people of one society from another. Steers, Runde and Nardon (2010) defined culture as characteristic shared by members of a group and, indeed sometimes defines the membership of the group itself.

There are many cultural values; however, the main interest of this study is cultural values which are highly related to economic development, or economic culture. As Porter (2000) has demonstrated that culture which influences competitiveness does not mean food, housing or costume but are beliefs, attitudes and values that bear on the economic activities of individuals, organizations, and other institutions, or so called economic culture. Thus, the definition of culture here is related to values, attitudes, beliefs, orientations, and underlying assumptions prevalent among people in a society that have an effect on national competitiveness. This paper explores how culture in this subjective sense affects the extent to which and the ways in which to achieve progress in wealth development.

To make it clearer and presented in an organized way, cultural dimension model is used as the theoretical framework, which categorizes values into dimensions of Individualism, Uncertainty Avoidance and Openness. Certainly, there are many cultural dimension models developed by other scholars for analysis at national, societal, organization and individual levels in several fields; however, this study only focuses on the value dimension that may have significant association with a nation's competitiveness.

3.2 Unit of Analysis and Rationality

A. Quantitative component: Statistical relationship test across many countries (*n* = 32-51)

To ascertain the general relationship between cultural values and national competitiveness, the statistical correlation across 32 to 51 countries, depending on the data availability on each cultural dimension and competitiveness performance data, is tested. Value data is sourced from the World Values Survey (2005 – 2009), while the performance data was obtained from the World Development Indicator, WIPO, PISA and other international organizations.

B. Qualitative component: Specific country studies of Korea and Malaysia and the rationality of selection.

For in-depth studies of individual countries, South Korea and Malaysia were selected. The primary reason of choosing Malaysia for comparison with Korea is that these two countries share similar political economic system but are culturally different. South Korea is part of the Confucian Asian cultural bloc or Sinic civilization zone. Malaysia, on the other hand, is a multicultural society heavily influenced by Islam and Indian civilization, these influences accounting for at least 65% of the population. The influence of Chinese civilization has been largely limited to the minority ethnic Malaysian Chinese. Historically, there was early contact between Malaysia and China as early as 1st century CE, but such contact was limited to trade and diplomatic exchange. Korea, on the other hand,

has been absorbing Chinese cultural influences continually over the past 5000 years. Ethnic Malays comprise the largest ethnic group in Malaysia. Consequently, political power is held by Malay leaders who use their influence to control national development policy making and institutional systems. Ethnic Chinese make for the second largest ethnic group (25%) in Malaysia, followed by ethnic Indians being the third largest ethnic group (7%). However, because ethnic Malays are the largest ethnic group, comprising 65% of the national population, Malay values and ethics are the main focus of this study.

For comparing cultural influences and their effects on national competitiveness, culturally dissimilar countries with similar political economic systems have been chosen for analysis. Malaysia and South Korea both are young countries that began the process of industrialization at about the same time. Both economies are export oriented. It would be unfair to compare the economy of South Korea with other countries having distinctly different political economic systems or significantly different industrialization histories. For instance, it would be improper to compare Korea with Japan since Japan has begun its modern industrialization two hundred years ago, and emerged as an Asian economic power in early 20th century, but Korea only begun to industrialize during the 1960s. It would also be inappropriate to compare distinctly different political economic systems, such as comparing South Korea to a communist country like Vietnam which had closed its markets until the late 1980s. It is also be improper to compare with Myanmar or Cambodia, since these two countries have a long history of political instability. However, Malaysia is only one stage

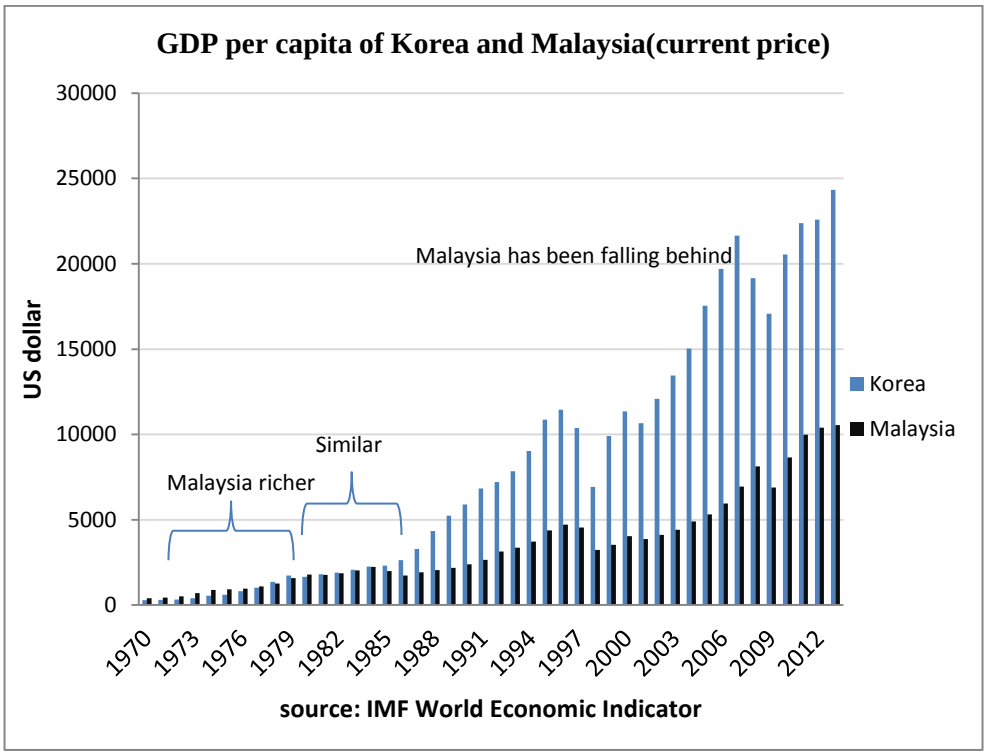
behind Korea in terms of economic development. Like Korea, the Malaysian approach to the economy can be described as "guided capitalism," has an open economy, a democratic electoral political system, and a globalized economy. However, Malaysia is culturally very distinct from South Korea. Table 3.3 summarizes the similarities and differences between Korea and Malaysia.

South Korea and Malaysia both are young countries. The Republic of Korea was established in 1948 and Malaysia was established, having gained independence from Britain, in 1963. In the 1950s, South Korea was considered one of the poorest countries in the world after the massive damage of Korean War. However, South Korea rapidly rebuilt its national infrastructure to become the advanced economy that it is today. South Korea is a fast growing innovation-driven economy. Malaysia, on the other hand, remains trapped at the middle-income level. In 1970s, resource rich Malaysia was relatively richer than South Korea was at the time, but from early 1980s South Korea began to catch up. The rapid economic growth of South Korea continued through into the 1990s. However, the 1997 Asian Financial Crisis caused massive damage to South Korean economy. Notwithstanding, the Korean people quickly revived the economy with a range of reformation programs and no small amount of hard work. The Malaysian economy, in the meantime, remained dependent on the primary resource sector and foreign direct investment. Local industries have grown slowly and most remain small or medium sized, particularly the technology innovation-driven industries. In fact, Malaysian leaders, such as former Prime Minister of Malaysia, Mahathir bin Mohamad, foresaw the

importance of technology development and had encouraged learning about the development technology industries from Japan and Korea since the mid-1980s. However, Malaysia has been unable to replicate Korea's achievements. To explain the miracle growth of the South Korean economy, Huntington (2000) argued that Korean successes cannot be separated from its productive economic culture.

Located in South East Asia, Malaysia is of a similar size to Korea, and was relatively richer than Korea until 1970s. Today, however, the GDP per capita of South Korean is 2.5 times larger than Malaysia's GDP per capita. Do political economic systems sufficiently explain these differences? Or do cultural factor provide a better explanation of these differences? Although the IMD and World Economic Forum report similarities in the competitiveness levels of these two countries, the GDP per capita gap between Korea and Malaysia, as shown in the Figure 3.4 is growing.

Figure 3.4 Comparison of GDP per capita of Korea and Malaysia (1970-2013)



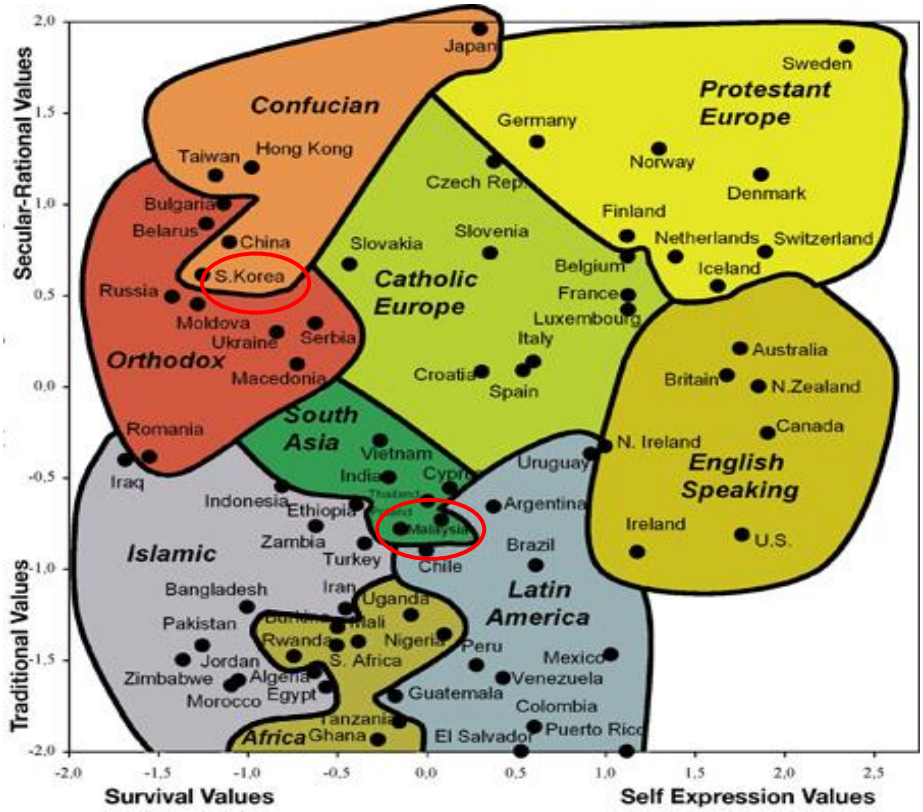
This trend indicates that Malaysia's wealth progress has been falling further behind every year, resulting in a widening income gap with Korea. Based on currently trends, this gap is expected to continue growing over the coming years. Table 3.3 summarizes the differences and similarities of these two countries.

Table 3.3 Background comparisons of South Korea and Malaysia

	South Korea	**Malaysia**
Region	North East Asia- temperate climate	South East Asia- tropical climate
Race origin family group	Mongoloid	Austronesian (65%)
Civilization branch	Sinic civilization(Confucian)	Islam from 15th century (before 15th century =Indian civilization)
Land and population size	Medium (100,210 km^2 ,48mil)	Medium (330,803 km^2 , 28mil)
Year of nation was formed	1948	1963
Government system	Presidential Republic	Federal Constitutional elective monarchy & Parliamentary Democracy
Guided capitalism	Yes	Yes
Open economy and export oriented since 1960s.	Yes	Yes
GDP per capita in US$ in 1970,1980,1990, 2000, 2009	$276,1647 ,$5893,$9607, $16450 (IMF)	$405,1780 ,$2395,$3666 $7469(IMF)
Current economic development stage(2010)	Advance and Industrialized economy- Innovation driven (World Economic Forum 2009)	Developing and Newly Industrialized Economy. Efficiency driven (World Economic forum 2009)

Based on WVS 2005 – 2009 data, Inglehart and Welzel (2010) have drawn a cultural map of world (see Figure 3.5). Korea is grouped into the Confucian cultural bloc and Malaysia is in South Asia bloc, indicating that these two countries are from different cultural zones.

Figure 3.5 The World Value Survey cultural map 2005-2009



Source: Inglehart and Welzel (2010, p. 554).

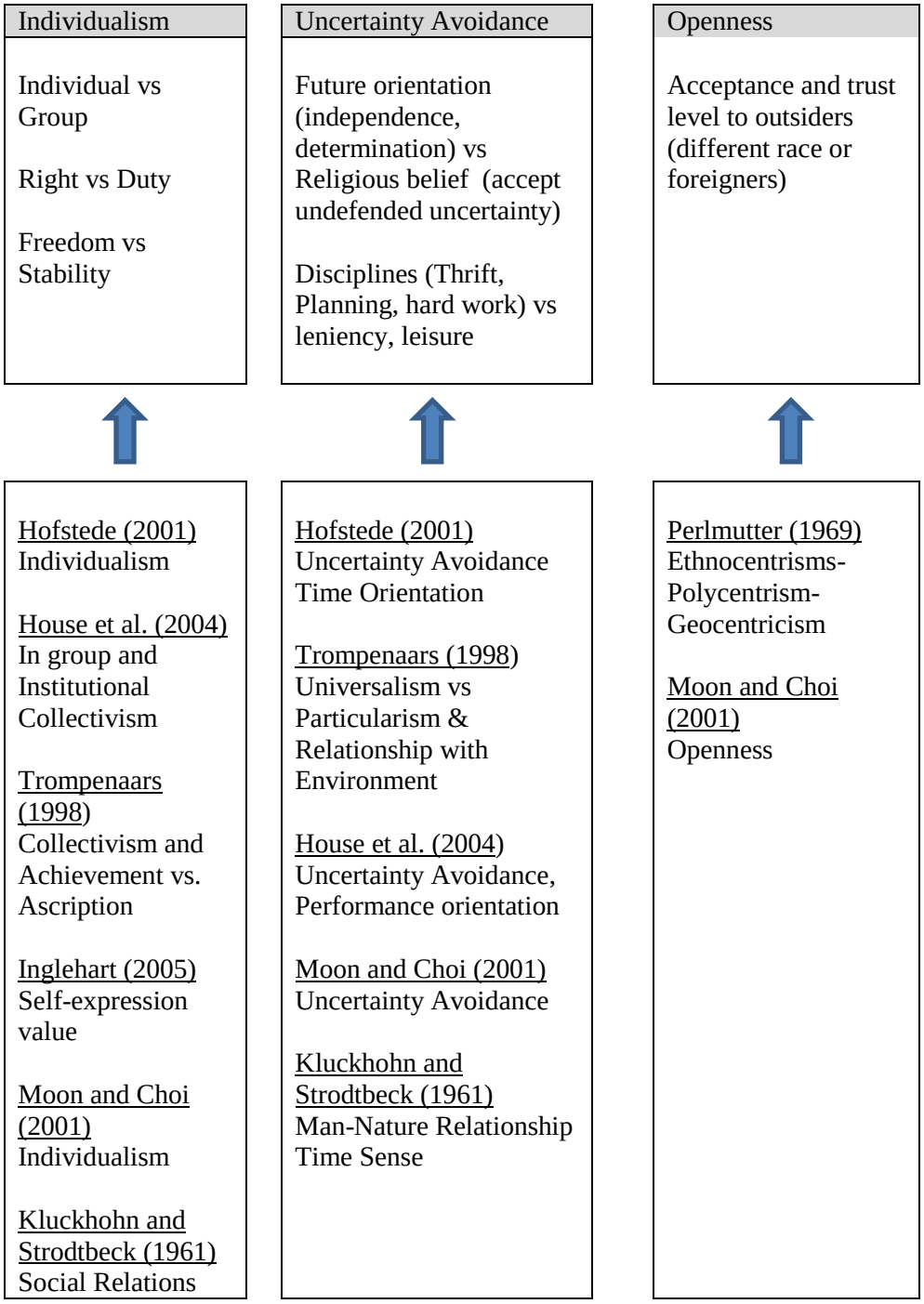
3.3 Analytical Framework

The purpose of this study is to investigate how cultural values affect national competitiveness. To compare differences in cultural values and how these affect a country's competitiveness, a cultural dimension model is used to provide a framework for the analysis of both the quantitative and qualitative data. It is hard to perform an analysis across different cultures effectively without a classification system of value dimensions because there are many cultural values. To develop a suitable cultural dimension model for this study, other researchers cultural dimension models have been reviewed and taken to inform the development of the present model.

After having reviewed the major cultural dimension models, this study chooses the dimensions of Individualism, Uncertainty Avoidance and Openness for analysis. Since this study is designed to examine relationships between cultural values and national competitiveness, Moon and Choi's (2001) OUI model has shown the importance of Individualism, Uncertainty Avoidance and Openness on a nation's competitiveness level. Basically, the OUI model is an improved model of the Hofstede's model. Moon and Choi (2001) studied Hofstede's dimension model and created the modified OUI model. Moon and Choi (2001) incorporated the dimension of power distance into Individualism, and removed the dimension of Masculinity and Long term orientation by arguing that certain values of masculinity and long term orientation overlapped with the dimension of Individualism, for instance the value of performance orientation in

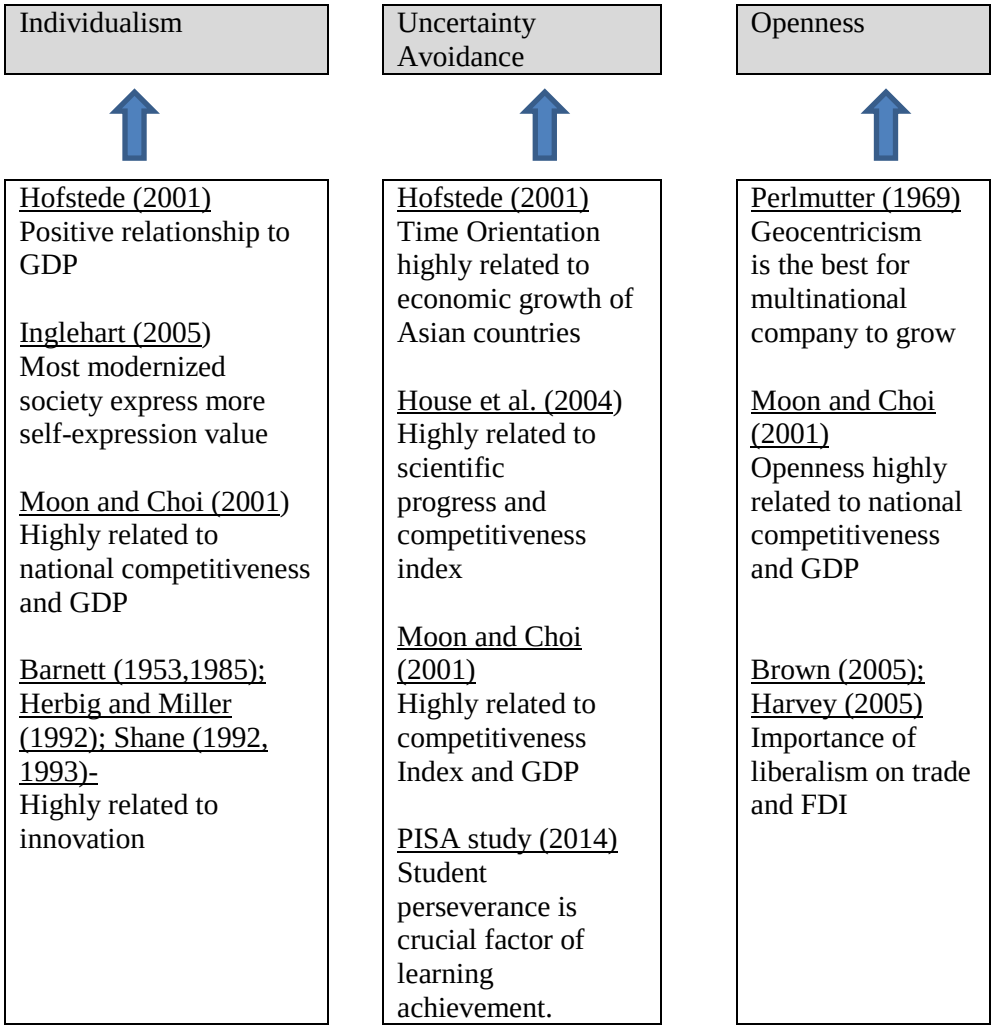
Masculinity dimension is overlapped with Individualism. By referring to the OUI model, this study selected the same three dimensions. However, some values of the Long Term Orientation such as planning, thrift and perseverance are incorporated in this study under the dimension of Uncertainty Avoidance. Values such as planning, thrift and perseverance are emphasized in high UAI culture because that is the way to cope with future uncertainties. Certain values of Masculinity dimension such as performance orientation is included in the Individualism dimension. In addition, UA values such as hard work, urge to be busy and time is money are somewhat overlapped with masculinity values; therefore Masculinity dimension is excluded from the model. Thus, the majority of the cultural dimensions could be incorporated in the dimension of Individualism, Uncertainty Avoidance and Openness as revealed in the Figure 3.6.

Figure 3.6 Current study's cultural dimension model, sub values and incorporations with other cultural dimensions



Further, several studies showed the importance of Individualism, Uncertainty Avoidance and Openness on a nation's competitiveness. For instance, Hofstede (2001) and Moon and Choi (2001) showed that Individualism is highly related to GDP per capita; and Barnett (1953, 1985); Herbig and Miller (1992) and Shane (1992, 1993) demonstrated that Individualism is highly related to innovation. Several studies (House et al. 2004; Moon and Choi 2001) revealed that Uncertainty Avoidance is highly related to national competitiveness index, to scientific progress in particular. Degree of Openness is also very significant as a determinant in trade openness and FDI inflow. Figure 3.7 summarizes findings in previous studies finding on each cultural dimension.

Figure 3.7 Previous studies finding on the relationship of cultural dimension with national competitiveness and economy



3.3.1 Definition of Individualism

Among the various cultural dimensions, Individualism-Collectivism dimension receives the most attention from among social scientists and business schools scholars, because this dimension have shown significant relationship with economy and important in understanding the differences in corporate cultural between the East and the West. Hofstede (1983) found that all the developed advanced nations have shown high Individualism in his survey studies. Hofstede's finding is consistent with the finding of Inglehart's study, which showed positive relationship between self-expression value and development stage of a nation. Although definition of Individualism-Collectivism is slightly different from the various studies, but overall this dimension values describe the individual relations with the existing collectivity in a given society.

Hofstede (1983, 2001) defined Individualism-Collectivism as the relative importance of individual vs group interest in society. According to Hofstede (1983), people in individualistic culture is supposed to look after his or her own interest and maybe the interest of his or her immediate family, while in collectivistic culture, people is supposed to look after the interest of his or her group. Individualistic society is loosely integrated while collectivistic society is tightly integrated where he or she gains protection from group members. Thus, in collectivistic societies, there is a sharp distinction between members of in-groups and out-groups. Triandis (1995) asserted that the quality of social interactions

between individuals in a collectivist culture depends heavily on whether or not they belong to the same in-group.

Trompenaars and Hampden-Turner (1998) also interpreted Individualism-Collectivism with similar meaning; the key question of this dimension is "Do people derive their identity from within themselves or their group?" This clearly affects individual attitude while interacting with in-group members and out-group members. For instance, trust within in-groups will be higher for collectivists than individualists. This explains the better openness attitudes to outsider in individualistic society compared to conservativeness of collectivistic society.

In House et al. (2004), Individualism dimension is defined in terms of the relative importance of individual versus group interest in society and the extent to which society encourages collective distribution of resources and collective action; the second definition is the extent to which individuals express pride, loyalty and cohesiveness in their organization and families. Moon and Choi (2001) defined Individualism as the degree to which a person is given responsibility and reward for performance on an individual basis. Overall, Individualism-Collectivism values explain how a society reacts to individual freedom, human right, achievement value, communication pattern, social relations, importance of duty and pride, reward system and power distance between the classes. Based on previous studies, basically both Malaysian and South Korean societies are categorized as collectivistic. According to the study by Hofstede (2001) and Moon and Choi (2001), South Korean is more collectivistic than Malaysian, which value highly on group harmony and

cooperative spirit. Value of loyalty, respect to senior people, harmony, stability and to make parents proud are the few key values in collectivistic society. Due to the importance of seniority and harmony relationship, people in collectivistic societies are integrated vertically (Hofstede 2001, p. 228). Relationship with family members should be very close with frequent contacts, and to make parents proud is important in collectivist society. Thus, one of the proxy values in this study is the importance of making parents proud compared to following own-wish and interest. Another proxy values for measuring Individualism-collectivism in this study is the importance of freedom of speech and stability. Individualistic society is supposed to value highly freedom of speech while collectivistic society emphasizes more on stability of society. The Table 3.4 summarizes the important norms of Individualism-Collectivism, derived from Hofstede (2001).

Table 3.4 Selected norms of Individualism-Collectivism

Individualism	Collectivism
Self-concept idiocentric	Self-concept in terms of group
Individual interest supposed to prevail over collective interest	Collective interest supposed to prevail over individual interests
Speaking one's mind is a characteristics of an honest person(freedom of speech)	Harmony should always be maintained and direct confrontation avoided.
Less conformity behavior	More conformity behavior
Personal opinion expected	Opinions predetermined by in-group
Weak family ties, rare contacts	Strong family ties, frequent contacts
Hiring and promotion decisions should be based on skills and rules only.	Hiring and promotion decisions take employees' in-group into account.
Employee perform best as individual	Employee performs best in in-groups.
Belief in individual decisions	Belief in collective decisions
In business, task and company prevail over personal relationship	In business, personal relationship prevail over task and company
Everyone has a right to privacy	Private life is invaded by public interests

Source: Hofstede (2001)

3.3.2 Definition of Uncertainty Avoidance

Dealing with uncertainty is fundamental in human experience. In Zen Buddhism, Buddhists are taught the truth we do not know because there is nothing which is permanent. Uncertainty is a basic fact of life, and we speak of uncertainty when 'anything might happen' or unknown events (Wennekers et al. 2007). Uncertainty is same as "ambiguity", in psychology, people are anxious for the things that are not under control. Hofstede (1983, p.81) stated that, "We have to live with uncertainty because the future is unknown and always will be." Some

societies socialize their members into accepting uncertainty and not becoming upset by it, but some societies socialize their people into trying to beat the future (Hofstede 1983, p.81). The different attitudes towards uncertainty affect the level of stress for a society (Hofstede 1980).

For high Uncertainty Avoidance society, strengthening ability to deal with uncertainty is essential, for example, saving money to deal with financial uncertainty in the future, subscribing insurance service, family planning, and etc. Uncertainty is different from risk, risk means the possibility of failure or mistake or loss, but uncertainty means unknown event that might happen. It includes the positive and negative type of unpredictable events, such as new technology product invention, natural disaster, financial crisis and changes of government policy. As uncertainty is a basic fact of life, learning to cope with uncertainty is essential. Ability to deal with uncertainty becomes an essential part of the survival process. To enhance one's ability to cope with uncertainty, Hofstede (1980) mentioned that human created technology, law and religion. Technology has helped human to defend themselves against uncertainties caused by nature; law, to deal with uncertainties in the behavior of others; religion, to accept the uncertainties human cannot defend (Hofstede 1980, p.154). For a technology company to survive sustainably in global business, persistent effort in the research and development of the latest technology is significant to protect ourselves against uncertainty. The highly competitive environment and ever increasing number of rivals indeed push the society towards higher and higher degree of Uncertainty Avoidance. In other words, the existential condition and

past experiences affect the level of Uncertainty Avoidance for individuals, company and nation. In brief, Uncertainty Avoidance is defined as the extent to which the members of a culture feel threatened by uncertain, unknown or ambiguous situation (Hofstede 1980; House et al. 2004).

Uncertainty study has received attention from researchers from a variety of fields, including sociology, psychology, finance, organizational behavior, and strategy (Edwin 2006). In cross cultural studies, Uncertainty Avoidance is one of the main cultural dimensions presented in the work of Hofstede (1980) and in the GLOBE project by House et al. (2004). Uncertainty Avoidance represents the collective willingness of a society to tolerate ambiguous outcomes. It refers to the extent to which people are made nervous by situations they consider to be unstructured, unclear, or unpredictable and the extent to which they try to avoid such situations by adopting strict codes of behavior and beliefs in absolute truths (Stohl 1993, p.103). In GLOBE project by House et al. (2004), Uncertainty Avoidance is defined as to the extent to which members of collectives seek orderliness, consistency, structure and formalized procedures, and laws to cover situations in their daily lives.

According to Hofstede (2001), people in high UA cultures look for structure in their organizations, institutions, and relationships, which makes events clearly interpretable and predictable. People in strong uncertainty avoidance culture only take known risk, and are active in controlling destiny, high UAI society also willing to take risky behavior if it helps to reduce ambiguities- such as starting a fight with an opponent rather than sitting back and waiting (Hofstede 2001). Thus,

countries with weaker uncertainty avoidance tendencies demonstrate a lower sense of urgency and slower pace of life (Hofstede 2001). People in such societies will not work as hard and accept each day as it comes (Hofstede 1983). Role of law and technology are highly emphasized in high UAI society. According to various studies (Hofstede 2001; Moon and Choi 2001), South Korean scored higher in UAI compared to Malaysia.

The term "Uncertainty Avoidance" is originated from Cyert and March's book entitled "A Behavioral Theory of the Firm (1963), but it is Hofstede who popularized the concept of Uncertainty Avoidance in social science literature. It is such a fundamental concept that it can be used to differentiate between cultures. For instance, Uncertainty Avoidance culture tries to beat the future, worry with unpredictable events, but uncertainty tolerance culture tends to accept each day as it comes, people will not work as hard, take risks rather easily and not becoming upset with uncertainty (Hofstede 1983). The following table present some values and norms of Uncertainty Avoidance based on Hofstede's book (1980, 2001).

Table 3.5 Selected norms of Uncertainty Avoidance

High Uncertainty Avoidance Culture	Low Uncertainty Avoidance Culture
The uncertainty inherent in life is felt as a continuous threat that must be fought	The uncertainty inherent in life is relatively easily accepted and each day is taken as it comes.
Worried about future	Willing to live day to day
Higher stress, anxiety	Ease, lower stress, less anxiety
Time is money	Time is free
Inner urge to work hard	Hard work is not a virtue per se
Need for written rules and regulations	There should be as few rules as possible
Rules should not be broken	Rules may be broken for pragmatic reasons
Only known risk are taken	Willingness to take unknown risk
Need for clarity and structure	Comfortable with ambiguity
Lower satisfaction score	Higher satisfaction score
Tolerance of diversity	Xenophobia
Tight societies	Loose societies

Source: Hofstede (1980, 2001)

After reviewing the existing studies, this study chooses the proxy values of thrift, independence, perseverance and importance of religious belief to measure the dimension of Uncertainty Avoidance. Uncertainty Avoidance society tends to be more future oriented, rules oriented and planning oriented. Time is very important; and therefore the society has a strong inner urge to work hard and achieving high performance. Because of higher stress level, uncertainty avoidance culture tends to be long term oriented which emphasizes stability, for instance saving money for future to ensure long term financial stability. Thus, in

uncertainty avoidance culture, people are assumed to be more frugal and conservative in spending. Uncertainty avoidance culture feels that the uncertainty in life is felt as a continuous threat that must be fought (Hofstede 2001). The readiness to engage in risky behavior is important in order to reduce ambiguities, such as starting a fight rather than sitting and wait; therefore stress is transformed into performance (Hofstede 2001).For achieving performance, being independent and persevering is important, it helps to maintain the ability in tackling sudden unknown events or risks, this includes any type of crisis, new threats and new change. Therefore, values such as thrift, independence and perseverance are chosen as proxy values for Uncertainty Avoidance measurement. For measuring Uncertainty Acceptance culture, it is believed that uncertainty acceptance society is more religious compared to uncertainty avoidance society. When human are unable to defend themselves against uncertainty, humans tend to explain it as the result of “fate” or “arrangement of God”. Indirectly it makes human accept uncertainty more easily. For uncertainty avoidance culture, people believing in controlling own destiny, therefore working hard to enhance the ability to tackle future uncertainty is important. The ability of dealing with uncertainty includes the capacity of technology, knowledge, financial strength and skill.

3.3.3 Definition of Openness

Openness is the third cultural dimension in this cultural model. In today's globalized age, openness is important to ensure a country is keeping pace with global trend. Hofstede's cultural dimension model does not have this dimension. This dimension is derived from Moon's OUI model (2004). Moon has shown that openness demonstrates positive relationship with competitiveness level. It means that if a country wants to be more competitive, they should be more open. Moon measured openness by using Aggressiveness (tendency to push home country values abroad, quick adaptation to international changes and global standard) and Attractiveness (willingness to accept foreign values, culture and new ideas, equal treatment, job openness). Aggressiveness is openness of outbound orientation while attractiveness is openness of inbound orientation. Moon (2004) demonstrated that openness is important in the early stage of development. The paper focuses on the values of willingness to change and to accept foreign values, culture, knowledge and different ideas, equal treatment to in-group (own people) and out-group (outsider/foreigner), following trend in globalization and liberalization which accept the international changes and quick adapt to new global standard. Low openness means conservative, reluctant to change, protectionism, reject free competition and anti-liberalization.

3.4 Cultural Dimension's Measurement and Difference from Existing Studies

Although this study uses the cultural dimension proposed by Moon and Choi (2001), the main difference between this study and Moon and Choi (2001) is that of the data set and measurement. Moon and Choi (2001) used the statistical data set from the "IPS National Competitiveness Report" as cultural variable data source but this study uses World Values Survey data (year 2005-2009) as the cultural variable data source. By using different data set, this study tested the cultural relationship with several aspects of national competitiveness. Due to the differences in data set, sub-values of measurement for each cultural dimension are also different from Moon and Choi (2001). In short, this study selects dimensions that can be measured from currently available data source as well as dimensions that may associate strongly with certain aspects of nation competitiveness.

A few areas of competitiveness were tested with cultural dimension and not as comprehensive as OUI studies with more cultural variables for each cultural dimension. Although the World Values Survey (2005-2009) consists of 265 value survey questions; however, there is limitation in terms of question choices as proxy variables for Individualism, Uncertainty Avoidance and Openness. Since Malaysia has only started to participate in the World Values Survey from 2005; therefore wave of 2005-2009 is selected as data source. After reviewing all the 265 survey questions, the most suitable survey questions are chosen as the proxy

variables for each cultural dimension. Table 3.6 summarizes the key point of similarities and differences from Moon and Choi's (2001) OUI studies.

Table 3.6 Similarities and differences from Moon and Choi's (2001) OUI studies

Similar in term of main theory argument		
Argument 1	Majorities of dimensions can be incorporated into dimension of Individualism, Uncertainty Avoidance and Openness	
Argument 2	Individualism, Uncertainty Avoidance and Openness highly related with national competitiveness	
Differences in term of research methodology		
	Moon and Choi (2001); Moon (2004)	This study
Cultural variable data (X variables)	IPS National Competitiveness report, KOTRA	World Values Survey (2005-2009) Soft data
Performance variable data (Y variables)	GDP per capita Single competitiveness index for each dimension	GDP per capita, different area of competitiveness index for each cultural dimension, for instance Innovation with Individualism, FDI with Openness.

In short, there are three cultural dimensions used in this study; namely Individualism/Collectivism, Uncertainty Avoidance, and Openness. This study

investigates how these cultural values affect various aspects of national competitiveness. This paper does not intend to identify a two-way relationship regarding how economic influences change values or vice versa. The focus of this paper is the identification of a linear relationship from values to national competitiveness. The value data is obtained from the WVS (2005 – 2009), which consist of 265 value survey questions. Out of the 265 survey questions, only the most suitable survey values questions were chosen as cultural proxy variables for measurement. The performance data's time frame is also of a similar period in accordance with the value data.

CHAPTER 4: QUANTITATIVE RELATIONSHIP ANALYSIS AND FINDING

To investigate the relationship between cultural values and national competitiveness, a statistical relationship test was conducted across many countries. Cultural values are organized through a cultural dimension model. The first cultural dimension is Individualism, the second is Uncertainty Avoidance (UA), and the third is Openness. The population size ranges from 32 to 54 countries, depending on the availability of both the value and competitiveness performance data for each cultural dimension. Value data was obtained from the World Value Survey (2005 – 2009), while the competitiveness performance data was obtained from various sources; such as the World Development Indicator, WIPO statistics, PISA, etc. Because the value data is from years 2005 – 2009, competitiveness performance data was selected from the similar period.

4.1 Hypotheses

In this study, it is assumed that cultural values are positively correlated with national competitiveness. Each cultural dimension is assumed to be highly correlated with a certain aspect of competitiveness; such as innovation capacity, education achievement, R&D investment, Foreign Direct Investment (FDI) attraction and trade openness. This study does not use a single national competitiveness index, but examines competitiveness from area range of

perspectives. For instance, this study examines the relationship between Individualism and innovation; UA and R&D investment, and education performance; and Openness with FDI openness (inflows), and trade openness. However, the relationship between each cultural dimension with GDP per capita was also tested to examine the cultural relationship with economic performance as an overview picture.

4.1.1 Relationship between Individualism/Collectivism and national competitiveness

The core values of individualism are freedom, competition, individual autonomy, and flexibility. Thus it is assumed that Individualism is positively correlated with innovation because of the values it promotes. The creative and critical thinking emphasized in individualist societies' educational philosophies have played a significant role in building innovation capacity. Collectivist cultures highlight the importance of hierarchy, vertical communication patterns, and resistance to change in the distribution of power; thereby discouraging flexibility and creativeness through rigid stratification, centralization of power, and top-down control which suppresses the innovative process. In contrast, the low power structure in individualist societies, including a less formal hierarchy of authority and control, greater decentralization of knowledge and responsibility, is expected to be associated with innovation.

As pointed out in previous studies (e.g. Shane 1993; Moon and Choi 2001), individualist societies reward based on personal effort and hard work, which leads to the development of new ideas, new inventions, and fast improvements in technology. A study by Shane (1992, 1993) showed that individualism is related to a high rate of innovation. The study found that individualistic and non-hierarchical societies are more inventive than other societies. Shane (1993) highlights the effects of hierarchical structures as having a mitigating effect on inventiveness. Hierarchical cultures discourage innovation because they restrict the free flow of ideas and communication between superiors and inferiors. In a collectivist hierarchical culture, management is usually centralized with authoritarian leadership. This leadership style restricts innovation growth due to the excess of rules and tight controls from top management. To encourage innovation and creativity, freedom of expression and communication is crucial. Shane (1992) stated that;

> …individualistic societies do not stress loyalty to the extent that collectivistic societies do, so they are able to gather more information necessary for invention…Inventors need to be compensated for their inventions monetarily and with recognition. This is more likely in individualistic societies, which are more willing to single people out…Characteristics of independence, achievement, and non-conformity, which have been found to encourage innovation, are all more common in individualistic societies (p.29).

Schwartz (1994), after studying cross-cultural values in over 30 countries, also suggested that Individualism is positively correlated with valuing affective autonomy (i.e. a varied and fun life) and intellectual autonomy (i.e. curiosity), and is negatively correlated with conservatism (i.e. valuing tradition) (Schimmack, Oishi and Diener 2005, p. 4). Therefore, affective autonomy and intellectual autonomy are the important values that encourage innovation. Herbig and Miller (1992) also suggest that higher order innovation thrives in individualistic societies. The table below shows some previous studies' finding on the Individualism influences on Innovation activities which quoted from Jones and Davis (2000).

Table 4.1 Previous studies of Individualism and innovation relationships.

Study (Focus of Research)	Influence of Individualism
Barnett (1953) - Innovative capacity	High
Barret (1985) - Innovative capacity	High
Herbig & Miller (1992) - Sourcing innovation capacity, higher order(radical)innovations	High
Mokr (1991) - Innovative capacity	High
Shane (1992, 1993) - Innovation	High

Source: Quoted from Jones and Davis (2000)

A study by Hofstede (1980) reported similar findings. Wealthy and innovation driven economies such as United States, Australia, United Kingdom, Germany, and other Western Europe countries are individualist cultures. Thus,

this study assumes that individualism is positively associated with national innovation.

4.1.2 Relationship between Uncertainty Avoidance and national competitiveness

To study the relationship between the UA dimension and national competitiveness, a culture of UA is assumed to be positively associated with several aspects of national competitiveness; such as R&D investment, academic achievement and GDP per capita. UA espouses rules, orderliness, preciseness, accuracy, planning, saving, long-term investment, and hard work; values believed to strengthen economic productivity. Sub-values indicative of a culture high in Uncertainty Avoidance include future orientation, rules orientation, and emphasizing stable performance over the long-term. Planning, rules, saving, education, hard work, and the development of new technology help to improve the ability to deal with uncertainty.

Several studies would suggest that UA has a significant influence on a nation's economic development. For example, Hofstede (1980) found that UA was positively correlated with economic growth for wealthy countries during the 1970s. The GLOBE project (House et al. 2004) found that the greater the degree to which a society avoids uncertainty, the greater the economic prosperity, scientific progress, and world competitiveness index. The more formalized and structured an economy is, the more competitive it is in the global environment.

The study also found that societies with a propensity of uncertainty-avoiding mechanisms tend to enjoy a higher quality of life and higher overall development. Moon and Choi (2001) also reported that the higher the degree of UA, the better the economic performance. Societies high in UA not only emphasize discipline, rules, and punctuality; but also value new ideas and development of new skills and strengths. The development of new ideas, skills, and strengths contributes to having greater resilience in dealing with uncertainty.

Several studies found that a culture of UA is related to high rates of technology invention. Uncertainty might be defended against though mastery over the environment by creating new technologies. Hofstede (2001, p. 146) stated that, "technology is primary mechanism to defend ourselves against uncertainties caused by nature, and rules helped to defend against uncertainties in the behavior of others". In high UA cultures, people take threats from nature seriously, therefore science and technology development is emphasized. In low UAI cultures, people embrace the ideas such as "some things are meant to be," or "easy come, easy go." They do not try to control nature, but rather "go with the flow," absorbing and mixing in with the surrounding environment (Moon and Choi 2001, p. 27). Low UAI cultures tend to accept fate and rely on religion to deal with uncertainty.

Hofstede (2001) observes that UA is distinguished from risk avoidance. Risk means when "things may fail" or "chance of a mistake," but uncertainty refer to "anything that might happen." Examples of uncertainty include new inventions in technology, changing of consumer references, new government

policy, natural disasters and etc. Thus, ability to deal with risks and opportunities is highly valued in UA societies where people are ready to engage in risky behaviors and to fight back rather than sitting and wait (Hofstede 2001). Once innovations are accepted, even if initially restraint by rules, they are taken more seriously than they would be in low UA countries (Hofstede 2001). Thus, frontierism is observable in high UA societies (Moon and Choi 2001). Frontierism is the mindset to invent and invest in building a more certain future (Moon and Choi 2001). It is the willingness to change and to create something better in order to avoid future uncertainty (Moon and Choi 2001). Hofstede (2001) is not alone in demonstrating the importance of technology creation in high UA societies. House et al. (2004) also notes the positive relationship between scientific progress and UA based on the GLOBE study findings. Javidan and Luque (2004, p. 603) stated;

> …In societies, uncertainty-reducing technologies may take the form of a service such as product warranties, insurance policies or investment market and plans. Technologies developed to handle uncertainty may include medical devices, security systems, and etc. Technology, rules, policies, and rituals are all means used by organizations to deal with uncertainty…

Making rules, long-term planning, technology, and hard work are important ingredients in successful economic development. Several studies support this point (Moon and Choi 2001; House et al. 2004). Thus, it is assumed that UA is positively associated with R&D investment.

To deal with uncertainty and threats to their survival, people need to be diligent. Hofstede (1980, 2001) and House et al. (2004) note that the degree of UA affects the value of "hard work" in a society. The inner urge to work hard and to be busy is an UA societal norm, and hard work is not a given in low UA societies (Hofstede 2001). Moon and Choi (2001, p. 30) argue that high UA societies not only keep the rules and are diligent, but also develop new skills and abilities. The PISA (2013) study shows that students' perseverance attitudes are positively associated with academic test scores. Therefore, high UA cultures are assumed to rank higher in education performance due to greater determination and hard work.

4.1.3 Relationship between Openness and national competitiveness

The third cultural dimension, Openness, is derived from Moon and Choi's (2001) OUI model. Openness is assumed to be positively associated with a nation's trade openness and FDI inflow. Openness values the liberalism that has been promoted in the political economy since the 18th century. Adam Smith, in his book, "The Wealth of Nation," suggested that values of free exchange and free competition are important for a nation to generate wealth. A nation's economy grows best in an open, competitive marketplace, without coercion. Thus, a free market with minimal government intervention should be pursued for higher growth. Openness not only guarantees the improved growth of nation, but of a firm. For instance, a study by Perlmutter (1969) highlights the importance of openness in the business

world. Perlmutter's Ethnocentric-Polycentric, Geocentric (EPG) model suggests that geocentricism should be the ideology accepted by any corporation operating globally. Through openness, a geocentric firm does not show bias to either home or host country preferences, but rather spotlights the significance of doing whatever it takes to better serve the organization. Global talents are recruited without concern for national background. This ensures the contribution of new knowledge and skill, and therefore, sustainable growth. Moon and Choi (2001) demonstrated that openness is a significant component of nation competitiveness, particularly in relation to foreign direct investment activities. Thus, this study assumes that openness is positively associated with both national trade openness and FDI inflow.

In summary, there are three cultural dimensions explored in this study's model; namely Individualism/Collectivism, Uncertainty Avoidance (UA) and Openness. Each of these dimensions is assumed to be positively associated with certain aspects of competitiveness as mentioned above.

4.2 Previous Measurements of Cultural Dimension

One of the most significant differences between this study and existing studies (e.g. Moon and Choi 2001; House et al. 2004) is the measurement and index calculation of cultural dimensions. By using the latest available data from the World Value Survey (2005 – 2009), this study retests the finding of previous studies by using new value data and new instruments. Previous studies by

Hofstede (2001), House et al., (2004), and Trompenaars (1998) have proposed cultural models with overlapping of dimensions, but all have used different instruments to measure the same dimensions.

4.2.1 Measurements of Individualism-Collectivism

To measure the dimension of Individualism-Collectivism, Hofstede (2001) used four value items from an IBM staff survey; namely importance of sufficient personal time on the job, jobs with variety and adventure, security of employment, and physical working conditions. "Sufficient personal time on the job and jobs with variety and adventure" represent the value of Individualism, while "security of employment and physical working conditions" represent the value of Collectivism. However, there are several versions of the survey questions in Hofstede's study based on different periods; therefore the survey questions used for measurement also differ slightly across different research years. For instance, in Value Survey Module (VSM 80) (Hofstede 2001, p.492), the formula for the Individualism Index was as follows:

Individualism Index= − 27 × (mean score A6 (importance of desirable area in job)
+ 30 × (mean score A8 (importance of cooperation in job)
+ 76 × (mean score A12 (importance of physical condition in job)
− 43 × (mean score A18 (importance of personal time in job)
− 29 (= constant)

In House et al.'s (2004) Globe project, the value items used to measure Individualism-Collectivism are different to those used by Hofstede (2001). The first survey question used in the GLOBE project for measuring Individualism-Collectivism concerns whether a culture should value group interests over individual interest, and the second survey question is whether, "children should take pride in the individual accomplishment of their parents vs. parents should take pride in the individual accomplishment of their children" (p. 464). In individualist cultures, people are freer to decide their own life targets and pursue their dreams, while in collectivist cultures people tend to fulfill the wishes of their parents and pursue making their parents proud as an important goal. In Moon and Choi's (2001) study, Individualism is defined as the degree to which a person is given responsibility and reward for performance on an individual basis. Therefore, the reward systems and responsibly of individuals or group are the proxy values for measuring the level of individualism in a society.

In this study, based on the World Value Survey 2005 – 2009 data, the survey questions used for measuring the Individualism-Collectivism are, "I seek to be myself rather than follow others," and "Importance of freedom of speech," representing the value of Individualism; and "My life goal is to make my parents proud," and "Importance of maintaining national order," representing the value of collectivism.

4.2.2 Measurements of Uncertainty Avoidance

To measure the degree of UA of a society, different studies embrace different methods and variables due to different interpretations. Major influential works are from Hofstede (1980, 1983 and 2001) and the GLOBE research project. Hofstede's work is based on 116,000 questionnaires, collected between 1967 and 1978, from IBM employees across 40 countries. The other major study, by House et al. (2004), the Global Leadership and Organizational Behavior Effectiveness (GLOBE) research project, is focused at the organization and societal levels, reports from a sample of middle manager survey respondents across 62 societies (countries). UA is one of eight cultural dimensions examined by the GLOBE program.

Hofstede (2001) argues that at the country level, higher mean stress is associated with having a stronger rule orientation and greater employment stability. Therefore, for measuring the degree of UA, Hofstede (2001) selected three items from IBM archives for his study; rules orientation, employment stability, and stress. The first question in the Hofstede's UA scale asked respondents to rate their agreement with the statement that rules should never be broken, even if it is in the best interests of the company to do so. Having a higher rule orientation aggregated at the societal level raises the UA. The second item asked respondents to estimate the amount of time they planned to stay in the employment of the company. The longer they planned to stay, the higher their desire for employment stability, and the higher the UA. The third item asked

respondents to indicate how often they felt nervous or tense at work. The greater stress levels reported at the societal level, the greater the degree of UA. Hofstede (2001, p. 148), cautions that he had used the IBM data to compose his questionnaire in 1967, and that it was possible that other, and perhaps better, survey indicators of national levels of UA might be developed.

Since Hofstede published his work, the concept of UA has been widely discussed with academia, and his measurement method has received much criticism. Luque and Javidan (2004, p. 609) note that Hofstefde's work on UA creates the impression that UAI may be a better measure of stress than more generalized measures of Uncertainty Avoidance. The employment stability question is inappropriate to test the importance of employment stability. Tayeb (1994, p. 234) comment that Hofstede's study suffers from an inevitable bias (i.e. American ownership and types of job), and as a consequence his samples are not representative of their respective countries. Although Hofstede's work has been subjected to a barrage of criticism, he was, nonetheless the first researcher to popularize the concept of Uncertainty Avoidance as a construct to differentiate between societies and to gain insight into the collective behavior of cultures (Edwin 2006).

In the GLOBE Project, Uncertainty Avoidance was defined in terms of a tendency toward orderliness and consistency, structured lifestyles, clear delineation of social expectations, and rules and laws to regulate uncertain situations (House et al. 2004). Uncertainty Avoidance is examined as an aspect of practices and values at both societal and organizational levels. House et al. (2004)

demonstrated that it is necessary to examine values and practices separately. For measuring practices, of the phrase "as is" is used, and for measuring values, the phrase "should be" is used when composing the question. The data analysis found that the Pearson correlation between the GLOBE societal Uncertainty Avoidance practices and GLOBE societal Uncertainty Avoidance values was negative (r = -62, p< .01) across the 61 GLOBE cultures used in the analysis (House et al. 2004, p. 621). Four items were used to measure the level of Uncertainty Avoidance practice and value in the questionnaire, these four items referred to orderliness and consistency, details of requirements and instruction, highly structure, and rules and law. The GLOBE study did not include the variables stress or employment stability as Hofstede had done earlier.

Hofstede (2001, p. 145) commented that, "uncertainty about future is a basic fact of human life with which we try to cope through the domains of technology, law and religion". Norms of Uncertainty Avoidance include hard work, preciseness, orderliness and planning. The high-UAI society seeks clarity, structure, and purity; the low-UAI society is comfortable with ambiguity, chaos, novelty, and convenience (Hofstede 2001, p. 161). But in his questionnaire, Hofstede (2001) only asks three questions, vis-à-vis employment stability, stress, and rules, to measure Uncertainty Avoidance. Definitely, it is not enough to reveal the full picture of Uncertainty Avoidance; other variable such as the development of technology to defend against the uncertainty of nature, future planning, time context, hard work, and preciseness were not tested. To make the measurement more comprehensive, Moon and Choi (2001, p. 29) added a new

variable to measure UAI. The new variable is frontierism which is related to offensive side of Uncertainty Avoidance. Frontierism includes the sub-variables of innovation, new ideas, risk taking, and entrepreneurship. Hofstede (2001, p. 148) later revised his work to better distinguish uncertainty from risk. In order to reduce anxiety, a high-UAI society stands ready to engage in risky behavior, to fight back rather than sit and wait (Hofstede 2001, p. 148). Once innovations are accepted, they are taken more seriously than in low-UAI countries (Hofstede 2001). Thus, frontierism is emphasized in high-UAI societies.

In this study, the proxy values for measuring Uncertainty Avoidance are slightly different. Based on the World Values Survey data, this study focuses on thrift - indicative of discipline and future oriented attitudes, determination - indicative of hard work, perseverance – indicative of a focus on long-term performance, and independence - indicative of self-ability and self-sufficiency over dependence on others; for representing the value of Uncertainty Avoidance. The importance of religion is chosen to represent uncertainty acceptance culture. It is believed that highly religious societies tend to accept uncertainties more easily through belief in a god.

In uncertainty avoidant cultures, long term performance is emphasized which can be seen in their attitudes toward saving money for the future, and in the importance of independence and determination to deal with uncertainty in a challenging world. For a society which tends to accept uncertainty, a strong belief in an unexplained power and religion is one way to deal with uncertainty. Believing in fate and subordinating oneself to a god or gods helps a society to

accept uncertainty more easily. However, for an uncertainty avoidant culture, depending on oneself is a more effective way to cope uncertainty. High-UAI cultures value individual efforts, for instance, by creating new technologies for coping with natural limitations, and work hard to enhance one's ability of coping with uncertainty or any new challenges that may arise in the future.

4.2.3 Measurements of Openness

Among the cultural studies, the study of Moon and Choi (2001) highlighted the importance of a culture of openness in enhancing national competitiveness. In their study, the proxy variable for measuring the level of openness of a country was composed of six variables, namely the adaptation of firms to international change, readiness for international competition, willingness to accept new ideas, equal treatment of domestic and foreign firms, competitiveness of foreign entrepreneurs, and openness of professional jobs to foreigners. Unlike other studies which have used survey questions as the measurement instrument, Moon and Choi (2001) used the IPS's hard data as the data source for measuring the cultural dimension. In this study, the proxy variables for measuring the level of openness of a society are taken from the World Value Survey (2005 – 2009); namely the "level of trust for foreigners" and the "level of willingness to have a different race as a neighbor". Openness attitudes toward outsiders are significant indicators of the level of openness of a culture. The Table 4.2 summarizes the measurement of each dimension and its difference from existing studies.

Table 4.2 Measurements of each cultural dimension and comparison with existing studies

Dimension	This study		Hofstede (2001)-VSM 94		House et al. (2004)	
	Proxies for measurement	Value data source	Proxies for Measurement	Value data source	Proxies for measurement	Data source
Individualism	+Seek to by myself rather than follow others +Importance of freedom of speech -Life goal is to make parents proud -Importance of maintaining order of nation	World Values Survey (05-09) Respondent : Public (sample size around 1000 for each country)	+ jobs with sufficient personal time + variety and adventure in the job - have security of employment - have good physical working conditions	IBM's staff's survey	Individual interest vs group loyalty/interest Children should take pride in the individual accomplishment of their parents vs Parents should take pride in the individual accomplishments of their children (p.464)	Value and Practices survey to 61 countries' mid-level managers
Uncertainty Avoidance	+Independence (Self ability) +Thrift (disciplines) +Determination & Perseverance (performance)		+Stress level + Job stability + Rules		Orderliness and consistency, details of requirements and instruction, highly structured	

	- Religiosity (accept undefended uncertainty)		Moon and Choi (2001)	source	and rules and law	
			Disciplines (order, rules) Frontier (future)	Hard data from IPS National Competitiveness Report (2000)		
Openness	+Trust level to foreigner - Would not like to have different race as neighbor		Moon and Choi (2001)	source	N/A	N/A
			-adaptation of firms to international changes, readiness to international competition, willingness to accept new ideas , equal treatment of domestic and foreign firms, competitiveness of foreign entrepreneurs, openness of professional jobs to foreigners	Hard data from IPS National Competitiveness Report (2000)		

4.3 Index Calculation of Each Cultural Dimension

After reviewing the previous studies' measurement of each cultural dimension, this study selected suitable value variables from the World Values Survey (2005-2009) to measure dimension of Individualism, Uncertainty Avoidance and Openness. The index calculation methodology is explained in the following section.

4.3.1 Individualism Index (II) calculation method

To construct the Individualism Index, four value variables are taken from the 5th wave of World Values Survey (2005 – 2009); namely the "importance of protecting freedom of speech" vs. "maintaining order in the nation", and "goals in life should be to seek to be myself rather than to follow others" vs. "to make my parents proud". The "importance of protecting freedom of speech" and "goal in life should be to seek to be myself" represent the values inherent in Individualism; while the importance of "maintaining order in the nation" and "goal in life is to make parents proud" represent values inherent in Collectivism. Therefore, cultures which emphasize the values of individualism score higher, while, societies which value collectivist values score lower.

The formula for calculating the index is as follows:

Individualism Index Formula

= 65 + (percentage of mentioning "freedom of speech" in question V.71)

− (percentage of mentioning "maintaining order" in question V.71)

+ (percentage of strongly agree or agree with "seeking to be myself rather than follow others as important life goal" in question V.65)

− (percentage of strongly agree or agree for "seeking to make parents proud as important life goal" in question V.65)

To make the index range above zero, 65 points are added as constant to the total Individualism index score. The range difference between v.71 and v.64 – v.65 is only 0.6%, therefore no adjustment is needed since the score range is similar. To correct the influence of acquiescence, each dimension's index calculation accommodates positive and negative values. Individualism values get positive points, while collectivism values get negative points. This method of index construction controls for the tendency of respondents in some societies to place relatively heavy emphasis on certain type of answer choice, while respondents in other countries mention relatively few of them. For instance, Japanese tend to choose moderate answer (e.g. agree, slightly agree) and avoid answering strongly (e.g. agree strongly, disagree strongly). By allowing for

positive and negative values in same type of answer choice (e.g. strongly agree), this can provide a fairer picture. The questionnaire items for individualism, selected from the WVS 2005 – 2009, are shown below:

v.71: If you had to choose, which one of the things on this card would you say is the most important? And which would be the next most important? First choice:

Possible answers:

1. Maintaining order in the nation
2. Give people more say
3. Fighting rising prices
4. Protecting freedom of speech

v.64 & v.65: People pursue different goals in life. For each of the following goals, can you tell me if you strongly agree, agree, disagree or strongly disagree with it?

v.64: One of my main goals in life has been to make my parents proud

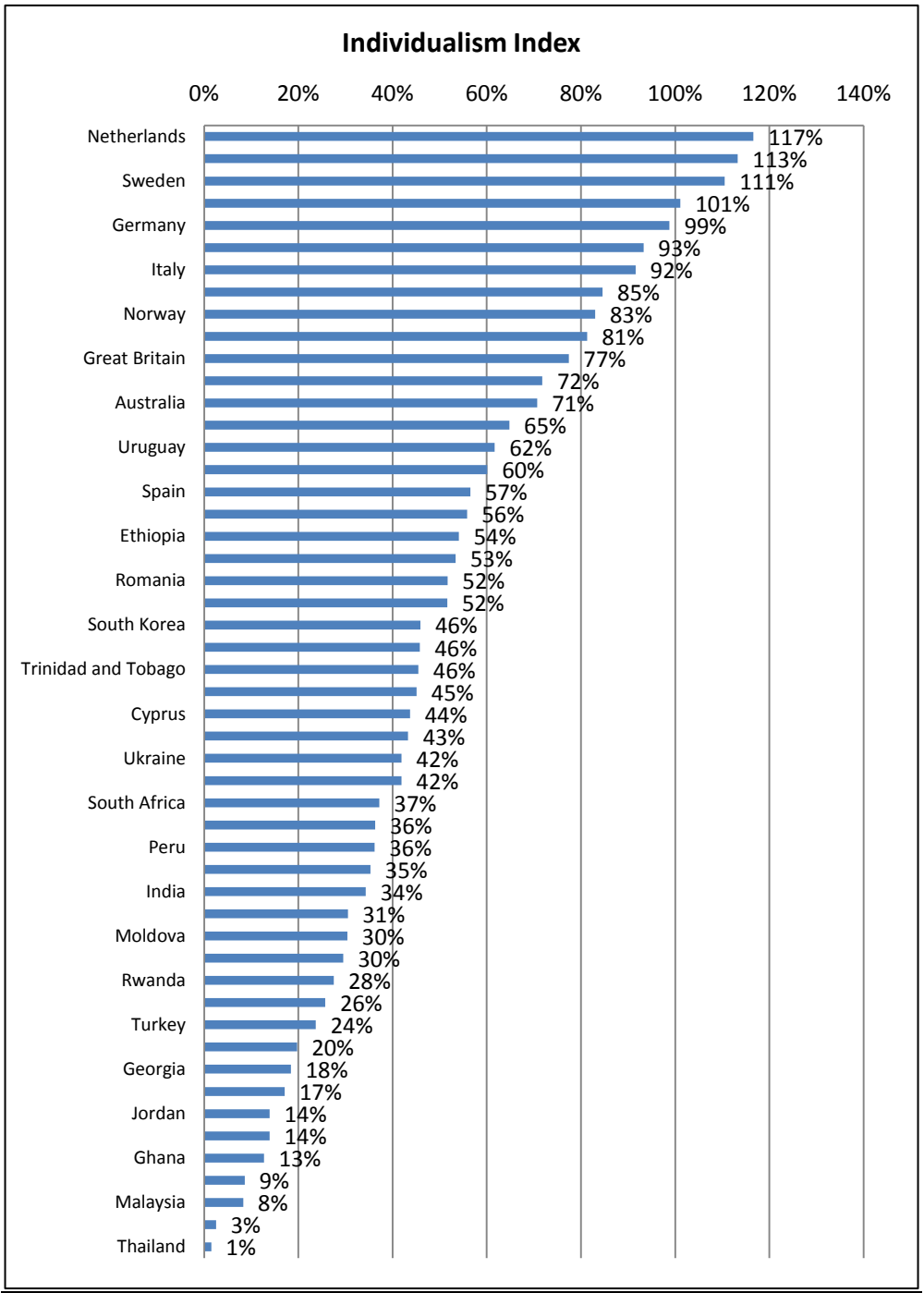
v.65: I seek to be myself rather than to follow others.

Possible answers:

1. Agree strongly
2. Agree
3. Disagree
4. Strongly disagree

After adding all the scores for 51 countries, the result shows that the top individualist societies are mainly from Northern Europe, North America, and Australia. Latin American cultures are moderately individualist, while collectivist societies are mainly from the Asian region. Figure 4.1 exhibits the Individualism score index for 51 countries.

Figure 4.1 Individualism Index



4.3.2 Uncertainty Avoidance Index (UAI) calculation method

Uncertainty Avoidance represents the collective willingness of a society to tolerate ambiguous outcomes. It refers to "the extent to which people are made nervous by situations they consider to be unstructured, unclear, or unpredictable, and the extent to which they try to avoid such situations by adopting strict codes of behavior and beliefs in absolute truths" (Stohl 1993, p. 103). In the GLOBE project by House et al. (2004), Uncertainty Avoidance defined as to the extent to which members of collectives seek orderliness, consistency, structure and formalized procedures, and laws to cover situations in their daily lives. In brief, Uncertainty Avoidance is defined as the extent to which the members of a culture feel threatened by uncertain, unknown, or ambiguous situation (Hofstede 1980; House et al. 2004).

To construct the Uncertainty Avoidance index, four value items were selected from the WVS (2005 – 2009) for measurement; namely importance of thrift, independence, determination, and religious faith. High uncertainty avoidance societies tend to save more for coping with future financial uncertainty, invest more in technology R&D for dealing with nature and competition uncertainty, and invest in education for long term ability and performance. Low uncertainty avoidant societies are assumed to be more present-oriented, religious, flexible, and easy going when dealing with life uncertainties. Low uncertainty avoidance is associated with a tendency to accept uncertainty through religious beliefs or believing in fate, compared to high uncertainty avoidance cultures

which try to decide their own destiny. Thus, enhancing the ability for dealing with future uncertainty is highly emphasized in a high uncertainty avoidance society. To make the Uncertainty Avoidance index, thrift, determination, and independence are seen in the context of this study as values indicative of high uncertainty avoidance culture; while strong religious beliefs in an important value in uncertainty acceptance cultures. Therefore, to get the total index score, the total percentage of choosing thrift, determination, and independence, as important childhood qualities is added, then subtract the percentage mentioning religious beliefs. The formula of index calculation for the Uncertainty Avoidance Index (UAI) in this study is as follows:

UAI = 15+ (Percentage of V12 (independence), V17 (thrift), and V18 (determination) − Percentage of mentioned V19 (religious faith) as important child quality)

To make the index range above zero, 15 points is added as a constant to the total index score. The following shows the questionnaire detail.

Survey items selected from World Value Survey 2005 – 2009

Child qualities

V12_21: Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important?

Possible answers:

(V12) independence

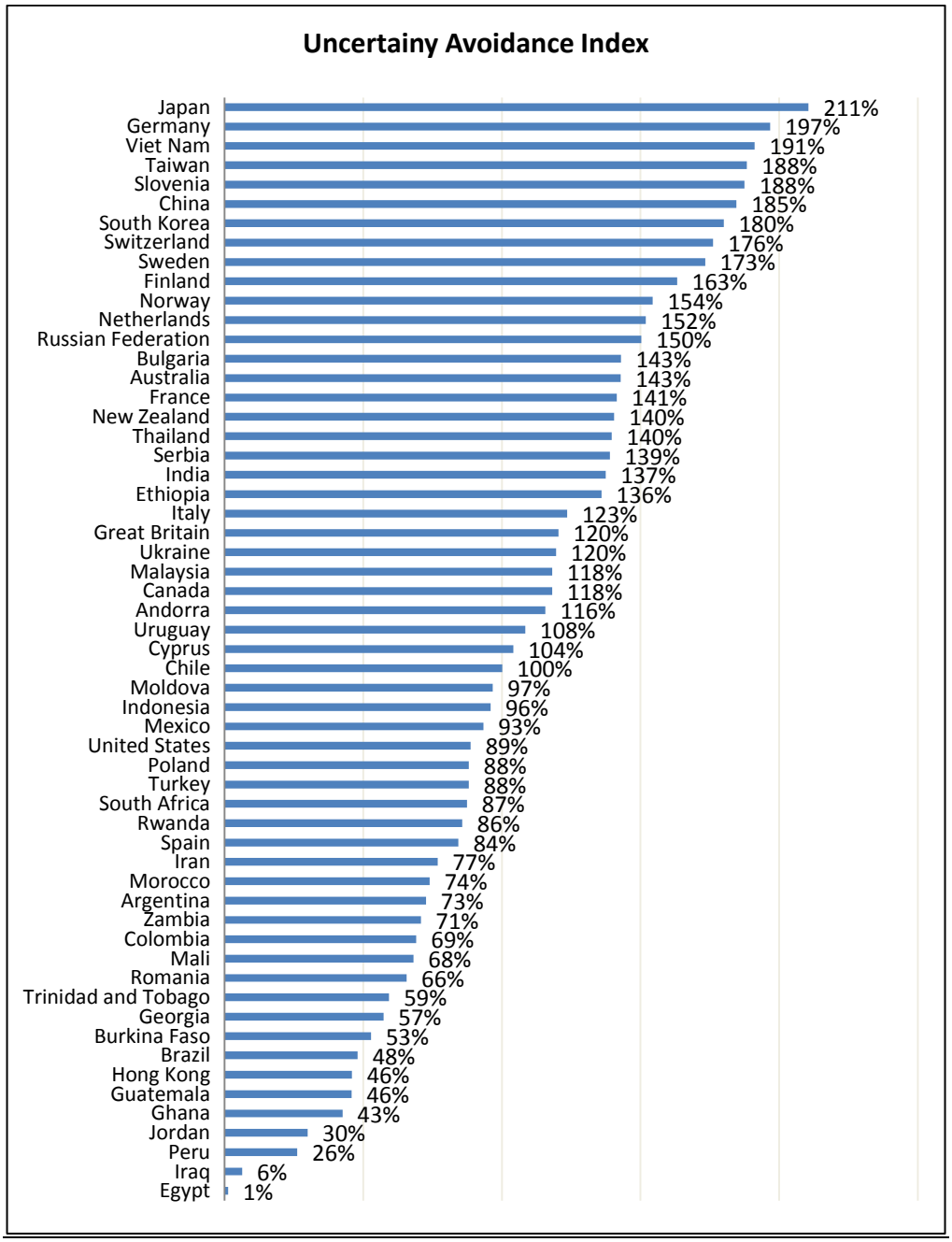
(V17) thrift saving money and things

(V18) determination perseverance

(V19) religious faith

After adding all the scores for 51 countries, the results show that the top Uncertainty Avoidance societies are mainly North East Asian countries (e.g. China, Japan and South Korea) and Northern European (e.g. Germany, Slovenia, Switzerland, Sweden, Finland, Norway). Low uncertainty avoidant countries are mainly resource rich countries, such as Brazil, Peru, Iraq and Egypt. High uncertainty avoidant cultures tend to be located in resource scarce regions and temperate climate zone; this shows that the nature environment has a significant relationship with one culture formation. This finding is consistent with House et al.'s (2004) research findings. Figure 4.2 exhibits the Uncertainties Avoidance score index for 57 countries.

Figure 4.2 Uncertainty Avoidance Index



4.3.3 Openness Orientation Index (OOI) calculation method

For calculating the Openness Orientation Index, two value variables were selected from the WVS (2005 – 2009); namely percentage of people who choose to trust foreigners (i.e. trust completely or trust a little), and percentage of people choosing that they would not like to have different race as a neighbor. A society that chooses to trust a foreigner reflects their attitude of openness to foreigners; while people who would not like to have different race as a neighbor reflect the conservativeness of their culture toward outsiders. The higher the index score, the more open the society. The formula is as follows:

Openness Orientation Index

= 50+ percentage of agree with v.130 (i.e. trust of foreigner) − (1.5266* percentage of agree with v.35 (i.e. dislike other race neighbors)

The survey questions were as follows:

v.130: I would like to ask you how much you trust people from various groups. Could you tell me for each whether you trust people from this group completely, somewhat, not very much or not at all? (Read out and code one answer for each)

(v.130) Trust: People of another nationality

Possible answers:

1. Trust completely
2. Trust a little
3. Not trust very much
4. Not trust at all

-1. Don´t know

-2. No answer

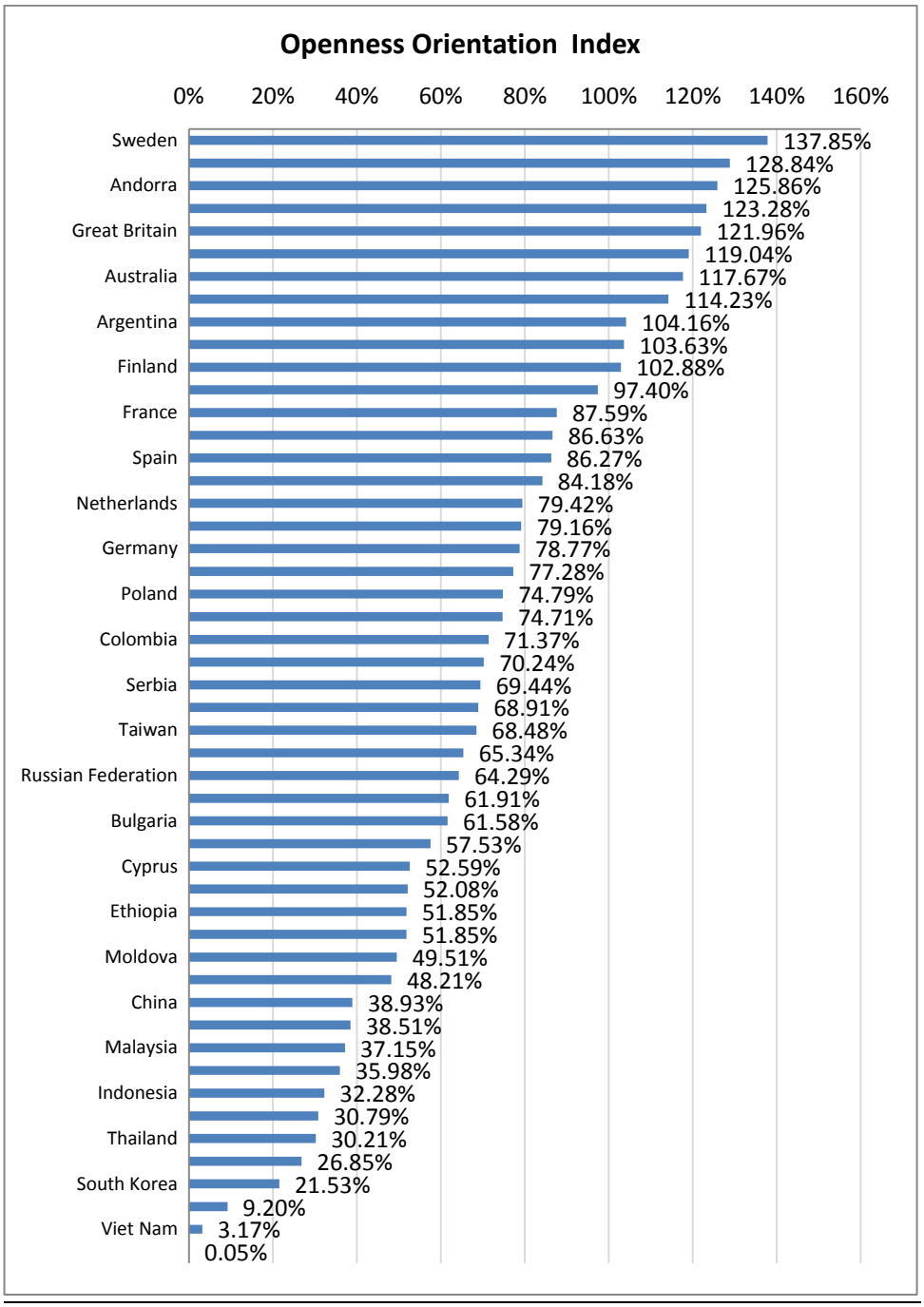
v.43MD: On this list are various groups of people. Could you please sort out any that you would not like to have as neighbors?

(v.35) People of a different race

To make the index range from above zero, 50 point is added as a constant to the total index score. To make the range at the same level between (percentage v.130 mentioned 1 and 2) and (percentage mentioned v.35), the percentage mentioning v.35 is multiplied by 1.5266. The total number of countries involved in this calculation was 50. The resultant scores are shown below. The top Openness Orientation index countries are mainly from Northern Europe and North America, follow by Latin America. This indicates that the Northern European and Northern American societies are more culturally open compared to people in other regions. Low Openness Orientation Index scoring countries are mainly from Asia, which are also collectivist cultures, especially East Asian

societies. India, Vietnam, and Jordan scored the least in the Openness Orientation Index.

Figure 4.3 Openness Orientation Index



4.4 Competitiveness Data Sources

To investigate the relationship between cultural values and a nation's competitiveness, a statistical of relatedness was conducted using value data from the World Value Survey (2005 – 2009), as explained in the previous section. Nation competitiveness data, such as innovation output, R&D investment, FDI, education performance, etc. was obtained from various sources; such as WIPO, World Development Indicator, UNCTAD, and PISA. The number of countries (*n*) involved in the study ranged from 35 to 56, depending on the availability of measurement data in each dimension and competitiveness data. The following table shows the value and competitiveness data, and data source, for each dimension under investigation study.

Table 4.3 Competitiveness data sources and index

Cultural dimension	Competitiveness aspect for relationship testing	Competitiveness data source	Details
Individualism	Innovation output	WIPO (Patents, Industrial design, trademark)	Innovation index = ((50*Patents Grants Index) + (30*Registered Industrial Design Index) + (20*Registered Trademark Index)) ÷ mean pop. 2000 – 2010. Total up the patents grants index, industrial design index, and trademark index for period of 2000 – 2010, and divide it by the average population for years 2000 – 2010. For calculating the innovation index, the patent grant index is given 50% weight, industrial design 30% weight, and trademark 20% weight. To convert the score into the index of patents grants, industrial design and trademark, the economy with the highest score is ranked first for each category index and is given a 100 point value as the top one. To calculate the each category score, for example patent grants, the patent grant ratio is divided by the world population ratio. Patent grant ratio = Sum of country patent grant ÷ sum of world patent grant World pop. ratio = Sum of country population ÷ total world population
	GDP per capita (2008)	World Development Indicator	

Uncertainty Avoidance	R&D investment Education performance of student GDP per capita (2008)	World Development Indicator Academic performance score by PISA (2009) World Development Indicator	Share of R&D expenditure to GDP, average 1999 – 2008
Openness	FDI inflow per capita Trade openness GDP per capita (2008)	World Development Indicator Tariff rate, World Development Indicator World Development Indicator	Average of FDI net inflow per capita for 2000 – 2010. Average tariff rate from 2000 – 2010 (applied, weighted mean, all products). The lower the tariff rate, the higher the trade openness index score. The country with the lowest tariff rate ranked first for trade openness index, which is given value of 10point.

4.5 Quantitative Analysis Finding

It is assumed that cultural values have a significant relationship with national competitiveness. For instance, the relationship between Individualism and innovation, Uncertainty Avoidance with R&D investment and education performance, Openness orientation with trade openness and FDI inflow, highlight the relationship between cultural values and national competitiveness. The relationship between GDP per capita and each cultural dimension is also tested. The following section shows the hypothesis for each cultural dimension and the results of hypothesis testing.

4.5.1 Individualism

Hypothesis 1.1:

Individualism has a positive relationship with innovation capacity.

Cultures that promote freedom and individual autonomy create an innovative economy, which is measured by its contribution to world patents, industrial design, and trademarks. By conducting a test for Pearson correlation between the Individualism index and the innovation output index, the results show that Individualism positively correlated with the innovation output index. The correlation efficient was 0.6023 which shows the strong positive relationship. The t value is 5.06 and P value is below 0.001.

Table 4.4 Correlations' testing result between Individualism and innovation.

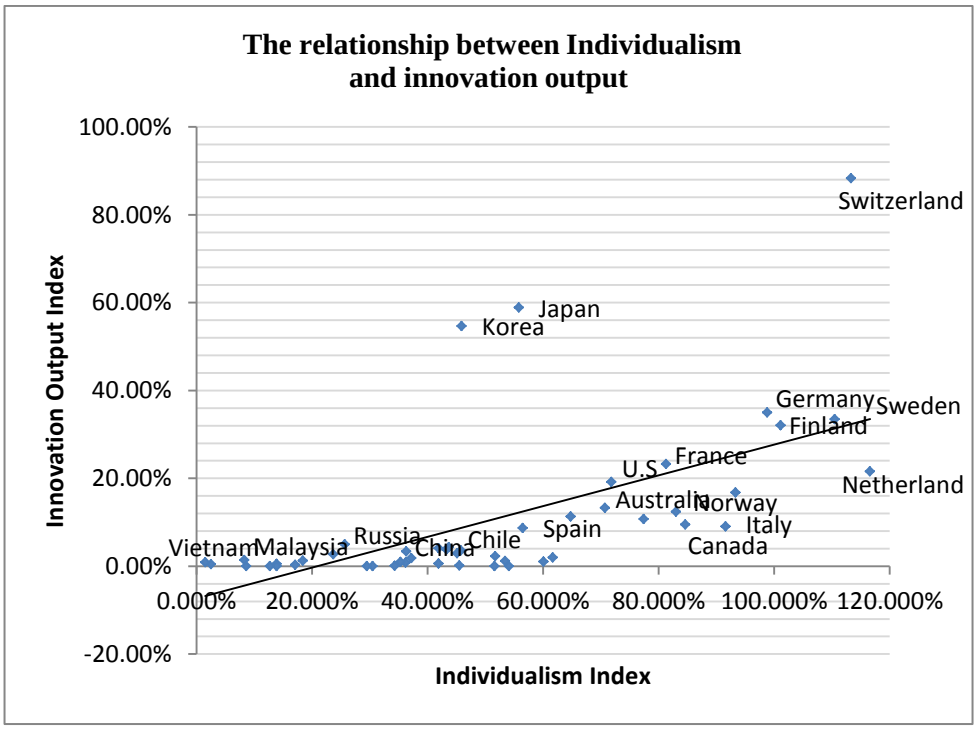
	Correlation coefficient	Coefficient of Determination R^2	*t.* stat	*P* value	Observation
Individualism-Innovation	0.6023	0.3627	5.06	<0.001	47

The statistical test shows that most of innovative economies come from the same cultural bloc. For example, Australia, Finland, France, Germany, Italy, Netherland, Norway, Switzerland, Sweden and the U.S. are all individualist cultures and are highly innovative. However, the presence of Japan and Korea in the list is somewhat unexpected given their high innovation and high collectivism. This indicates that Japan and Korea are both top innovators, but collectivist cultures as well. Most less-innovative economies also tend to be collectivist cultures. This indicates that some other aspect of culture may support the innovation level of Japan and Korea, or that collectivism may not be an obstacle to innovation. To see whether other cultural factors have affected the level of innovation, the regression analysis test was conducted between Uncertainty Avoidance and Innovation. Regression analysis indicated that these two variables have a positive relationship with a correlation efficient of 0.517 and with a P value below 0.001. The test between openness and innovation shows that the relationship is weakly positively correlated with a correlation efficient of 0.325 (R^2 = 0.11, t = 2.12, p = 0.04). The multiple regression analysis showed that Individualism was the most influential factor (coefficient 0.352, t = 3.18) compared to Uncertainty Avoidance (coefficient 0.11, t =2.10) and Openness

(coefficient -0.06, t = -0.72). This shows that while Individualism was the most influential cultural factor on the innovation index, Uncertainty Avoidance was also very important.

Since collectivist countries, such as Korea, has been very innovative; a specific country study of South Korea was conducted to see how collectivism works in light of Korea's tendency to produce some highly innovative organizations, and to identify any cultural changes which might have occurred within Korean innovative organizations in recent years.

Figure 4.4 The relationship between Individualism and innovation output



4.5.2 Uncertainty Avoidance finding

Hypothesis 2.1:

Uncertainty Avoidance has a positive relationship with R&D investment.

Uncertainty Avoidant societies tend to invest more in R&D for coping with the future uncertainty of technology development. New technology from global competitors or from a possible technology paradigm shift in the future that may create new threats, thus investing R&D might offset any possible new changes. Correlation testing between the Uncertainty Avoidance index and R&D investment shows that Uncertainty Avoidance has a strong positive relationship with R&D investment. Therefore, the hypothesis is supported with correlation efficient of 0.6295 (t value= 5.06 and P value below 0.001).

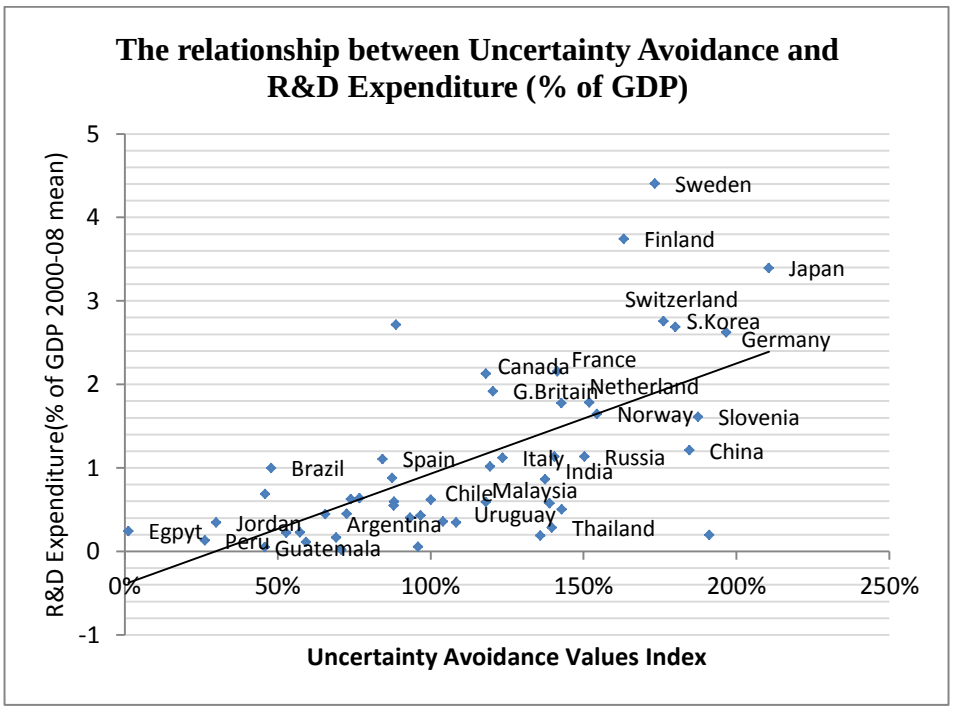
Table 4.5 Correlations testing result between UAI and R&D expenditure

UA-R&D expenditure	Correlation coefficient	Coefficient of Determination R^2	*t* stat	*P* value	Observation
	0.6295	0.3962	5.67	<0.001	51

These findings show that cultures high in Uncertainty Avoidance tend to spend more on R&D (see figure below). Top scoring countries on Uncertainty Avoidance and R&D investment include those from North East Asia (e.g. China, Japan and S. Korea) and Northern Europe (e.g. Germany, Sweden, Slovenia, Switzerland, Finland, Norway, and the Netherlands). Resource rich countries,

such as those from the Latin American region and the Middle East, are congregated at the lower scoring end (i.e. low UAI and low in R&D expenditure). South East Asian countries rank moderately. This suggests that climate and natural resources may affect the Uncertainty Avoidance index.

Figure 4.5 The relationship between Uncertainty Avoidance and R&D expenditure (% of GDP)



Hypothesis 2.2:

*Uncertainty Avoidance has a positive relationship with academic performance***.**

Investing in children's education is emphasized in high UA cultures in order to enhance independence and productivity. By enhancing ability and performance

through education, it will help to deal with future uncertainty and ensure survival. The uncertainty inherent in life is felt as a continuous threat that must be fought in high UA societies, and strengthening an individual's abilities is one way to fight that possible threat. Promoting human resource development and the quality of the labor force are emphasized in high UAI societies. An inner urge to work hard is valued highly by the society and is seen as necessary for a better life. Therefore, it is assumed that in high UA cultures, students achieve better academic performance due to the valuing of hard work, discipline, and future oriented attitudes. High UA cultures need clarity, while low UA cultures are comfortable with ambiguity. By using the PISA examination score data, it is assumed that high UA culture students achieve better academic scores compared to low UA culture students.

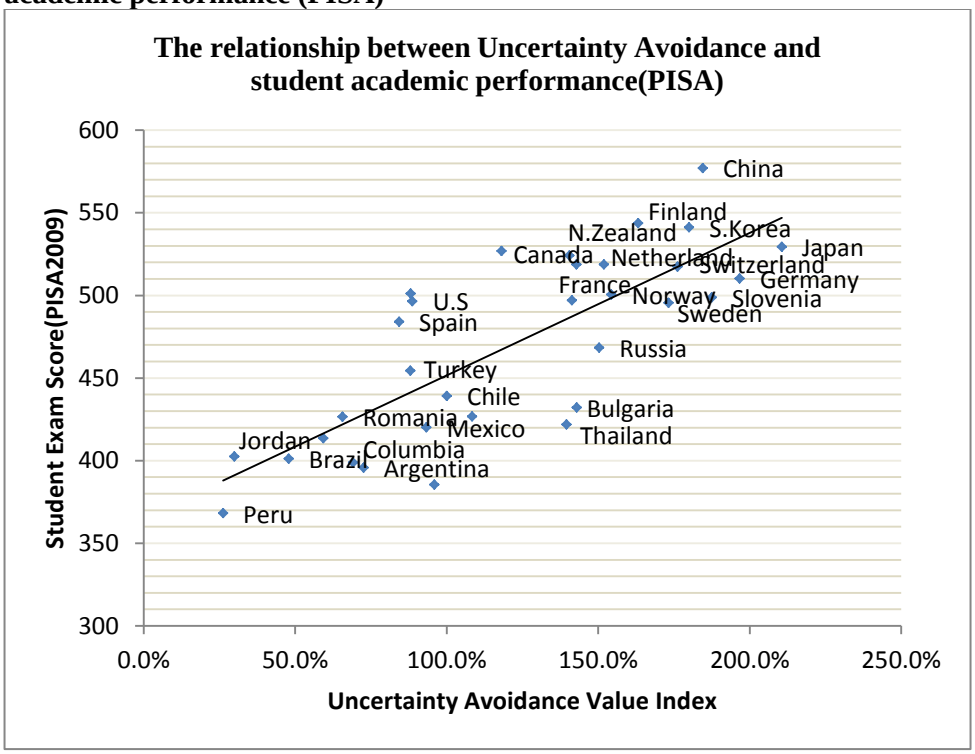
The hypothesis is supported with a correlation coefficient of 0. 7796. The *t*-value is 6.82. It indicates that degree of uncertainty avoidance has a strong positive relationship with educational performance. In comparison to other cultural factors, uncertainty avoidance has the greatest influence on educational performance, as indicated by the high coefficient value.

Table 4.6 Correlations testing result between UAI and academic performance.

UAI-academic performance	Correlation coefficient	Coefficient of Determination R^2	*t* stat	*P* value	Observation
	0.7796	0.6077	6.82	<0.001	32

The graph in Figure 4.6 shows that high UA cultures; such as Japan, China, S. Korea, Germany, Finland, Sweden, Norway, and Switzerland, are the top performers for student academic scores overall. Low Uncertainty Avoidance cultures, mainly from the Latin American region (e.g. Peru, Brazil, Columbia, Argentina, Chile, and Mexico) show poorer performance in student academic scores.

Figure 4.6 The relationship between Uncertainty Avoidance and student academic performance (PISA)



4.5.3 Openness finding

Hypothesis 3.1:

Openness orientation has a positive relationship with trade openness (lower tariff rates).

The more open a culture, the more open the society is to trade with lower tariff rates. The open a culture, the less inclined the society is to trade and the more likely that tariff rates will be high. The hypothesis is supported with a *P* value below 0.01%. Openness has a positive relationship with trade openness, as evidenced by a correlation efficient of 0.5482. Nonetheless, compared to other cultural factors, Individualism is the most influential factor with the highest coefficient value as determined by multiple regression testing.

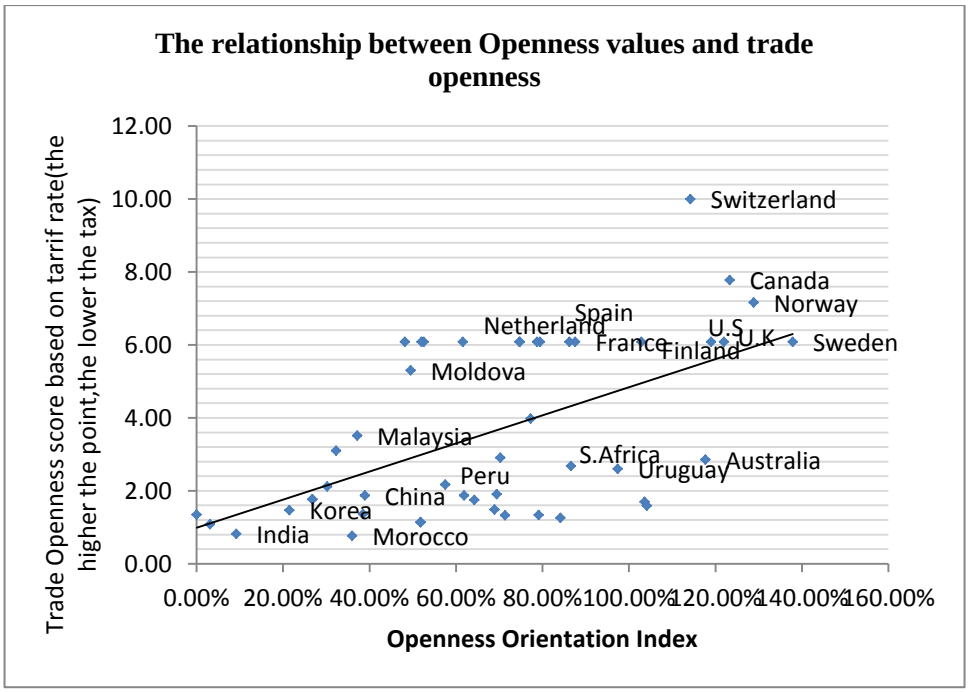
Table 4.7 Correlations testing result between openness value and trade

Trade-openness orientation	Correlation coefficient	Coefficient of Determination R^2	*t* stat	*P* value	Observation
	0.5482	0.30	4.35	<0.001	47

Openness oriented culture, such as Switzerland, Canada, Norway, Sweden, U.S., U.K., and Finland, are more open to international trade with low tariff rates. Asian countries, such as China, India, and Korea, are considered low openness countries and impose more trade barriers. This reflects the positive relationship between valuing openness and trade openness policies. The regression test indicated that Individualism (correlation efficient = 0.72 and with highest

multiple regression coefficient) was the most influential factor, compared to UAI and Openness (see Table 4.11).

Figure 4.7 The relationship between Openness values and trade openness



Hypothesis 3.2:

Openness has a positive relationship with FDI inflow.

Openness oriented cultures tend to attract more FDI through business friendly policies to outsiders. The hypothesis is supported with a correlation coefficient of 0.6775, indicating a strongly positive relationship and the *P* value below 0.0001 alluding to the significance of this correlation. Nonetheless, in comparison to other cultural factors, Individualism was the most influential

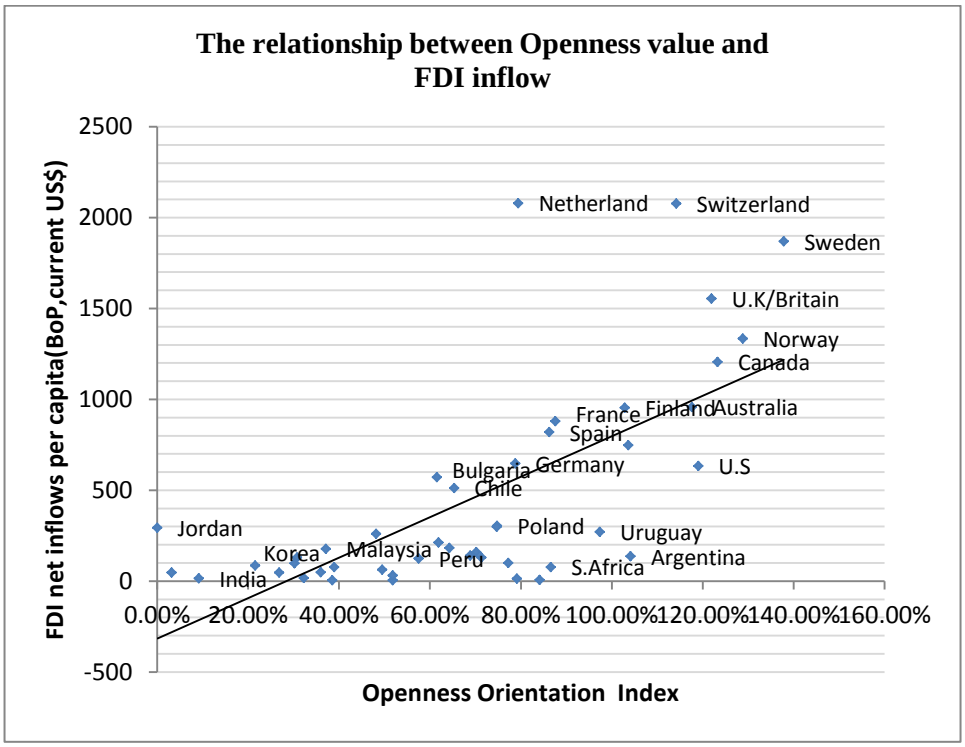
cultural factor on FDI inflow. As was the case for openness, individualism plays a significant role in FDI inflow.

Table 4.8 Correlations testing result between Openness value and FDI inflow

Openness -FDI	Correlation coefficient	Coefficient of Determination R^2	*t* stat	*P* value	Observation
	0.6775	0.4589	6.04	<0.001	45

This test result shows that an Openness Oriented culture attracts more FDI to the country. The openness value is reflected in FDI policies which act to attract FDI. Top scorers of openness culture and FDI net inflow (see Figure 4.8) are mainly Northern Europe and North American countries; such as Sweden, Switzerland, UK, Norway, Canada, Australia, Finland, and the U.S. Asian countries, like Korea and India, have significantly less FDI attraction. A strong positive relationship between openness values and FDI net inflow may reflect the influence of openness values on a country's FDI policies.

Figure 4.8 The relationship between Openness values and FDI inflow



To check the overall relationship of cultural values with economic performance, Pearson correlations test was conducted between each of the cultural dimension with GDP per capita. The test result shows that the degree of Individualism and Openness has a strong positive relationship with GDP per capita while UAI has a moderate positive relationship with GDP per capita as shown in the table below.

Table 4.9 Correlations testing result between each cultural dimension and GDP per capita

Cultural variable	Economic variable	Number of countries	Correlation efficient	Coefficient of Determination R^2	T value	P value
Individualism	GDP per capita	45	0.8153	0.6647	9.23	<0.000
Uncertainty Avoidance (UAI)	GDP per capita	47	0.4522	0.2045	3.4	<0.000
Openness	GDP per capita	44	0.6755	0.4549	5.92	<0.000

4.6 Quantitative Research Summary

In brief, the Individualism index is highly related to the innovation index. Uncertainty Avoidance is associated positively with R&D expenditure and student academic performance. Societies which are more opened-minded and individualistic also perform better on trade openness and attract more FDI. The overall quantitative relationship test (i.e. correlation coefficient) between each cultural dimension and competitiveness is summarized in Table 4.10 and 4.11. Individualism was found to be the most influential cultural value for innovation, trade openness, FDI openness, and GDP per capita. The values of Individualism are somewhat similar to those of openness; therefore it is not surprising to see a strong positive relationship between them. In terms of educational performance,

Uncertainty Avoidance has the strongest positive relationship compared to other cultural factors.

Overall, this study proves that cultural values are highly related to various aspects of a nation's competitiveness and economic performance. Innovation driven economies, such as those of Northern Europe, Japan, and Korea, are Uncertainty Avoidant cultures. Uncertainty Avoidant cultures perform better in terms of educational performance and R&D investments. Confucian cultural zone countries, such as Japan, Korea, China, and Vietnam, have a high degree of Uncertainty Avoidance. Northern European countries, such as Germany, Switzerland, Sweden, Norway, and Finland, are also categorized high UAI cultures. This suggests that Uncertainty Avoidance plays a significant role in enhancing a country's national competitiveness. This might also hint at China and Vietnam becoming future innovators and more economically prosperous should the political economic system become more supportive.

However, more individualist and open-minded western countries perform better in terms of FDI inflow and trade openness. Confucian cultural zone countries, like Japan, Korea, and China are more collectivist and less open; and perform poorer in trade openness and FDI inflow. This suggests that if Confucian cultural zone countries want to achieve similar successes as what Northern Europe countries have enjoyed, they need to be more open culturally and embrace individualism. The relationship between the Individualism and Innovation indexes is highly positive; however the counter-intuitive strong ranking of Korea and Japan suggests that a collectivist culture also can achieve

similarly high levels of innovation. However, the long term sustainability of the innovation capacity of collectivist cultures is questionable. The statistical testing has shown that Uncertainty Avoidance has positive relationship with innovation. This may explain why Korea and Japan are so highly innovative, since they invest a lot in R&D, and perform very well in science and engineering education.

Cultures low in Uncertainty Avoidance tends to be less competitive. Countries from Latin America, South East Asia, and the Middle East are categorized as low-moderate UA cultures. Countries in these regions tend to fall behind in technology, trade, and student academic performance. Interestingly, this group of countries also tends to be rich in natural resources. Therefore, the presence of an abundance of natural resources may affect the cultural values which make people more tolerant of ambiguity and threats. Non-achievement or less achieving cultures are the product of a tendency toward a present orientation, being easy going with environmental uncertainty, and being accepting of uncertainty through religion.

In conclusion, the strong relationship between cultural values and national competitiveness as identified by this study establish that cultural values are highly related to national competitiveness. Among the cultural dimensions, Individualism has the strongest correlation with national competitiveness achievement, especially in terms of innovation, trade, and FDI openness. The core values of freedom, free competition, individual autonomy, and performance orientation play a significant role in determining the economic activities and productivity levels of a society. The “Revolution of Human Thought” and decline

of feudal monarchies beginning in the 17th century in Western Europe, gave rise to a culture of liberalism and individualism, and these values now appear to have been some of the driving forces behind the wealth generating capacity of many European and western economies. Countries with some of the highest standards of living, such as Switzerland, Norway, Finland, and Sweden, also top the list in Individualism, Uncertainty Avoidance, and the Openness Orientation index. This indicates the importance of these three cultural values in terms of long-term national competitiveness, particularly in innovation driven economies which tend to be supported by values of such as individual autonomy, freedom, and openness.

Table 4.10 Summary of quantitative relationship finding- correlation and regression matrix

Hypothesis	Independent variable	Dependent variable	Number of countries	Correlation efficient	Coefficient of Determination R^2	T value	P value
1	Individualism	Innovation	48	0.6023	0.3627	5.06	<0.000
1.2	Individualism	GDP per capita	45	0.8153	0.6647	9.23	<0.000
2.1	Uncertainty Avoidance	R&D expenditure	51	0.6295	0.3962	5.67	<0.000
2.2	Uncertainty Avoidance	Education	32	0.7796	0.6077	6.82	<0.000
2.3	Uncertainty Avoidance	GDP per capita	47	0.4522	0.2045	3.4	<0.001
3.1	Openness	Trade openness	47	0.5482	0.30	4.35	<0.000
3.2	Openness	FDI openness	45	0.6775	0.4589	6.04	<0.000
3.3	Openness	GDP per capita	44	0.6745	0.4549	5.92	<0.000

Table 4.11 Comparison of three cultural dimension relationships with each competitiveness achievement area

Dependent variable/Independent variable	Individualism		Uncertainty Avoidance		Openness	
	Correlation efficient	T stat	Correlation efficient (r)	T stat	Correlation efficient	T stat
Innovation	0.6023	5.06	0.5170	3.72	0.325	2.12
R&D investment	0.7141	6.45	0.6295	5.67	0.5911	4.64
Education performance	0.55	3.41	0.78	6.67	0.31	1.64
Trade openness	0.72	7.01	0.34	2.28	0.5482	4.35
FDI openness	0.81	8.8	0.40	2.60	0.6775	6.04
GDP per capita	0.82	9.23	0.45	3.4	0.67	5.92

CHAPTER 5: SPECIFIC COUNTRY STUDIES OF SOUTH KOREA AND MALAYSIA

In addition to the study of the general pattern of the relationship between cultural values and competitiveness, South Korea and Malaysia have been selected for an in-depth analysis. Although these two countries are part of the East Asian region, both countries are culturally very different. South Korea is part of the Sinic bloc of civilizations, a group of homogeneous cultures influenced by Confucianism. Malaysia belongs to the Austronesian-speaking cultural bloc, which is highly influenced by Indian civilization, Islam, and Western colonialism. Huntington (2011) classified Malaysia as an Islamic civilization due to its majority Malay Muslim population. Although Malaysia's population today is multi-ethnic, the ethnic Malays and others Austronesian-speaking groups comprise 60% of the total population. The second largest ethnic group in Malaysia is the Chinese who make up 25% of the population, followed by ethnic Indians who make up about 7% of the population.

South Korea and Malaysia were newly established nations after World War II. Industrialization of the two countries took off around the same point. South Korea, after suffering massive destruction during the Korean War of the early 1950s, set off on its own modernization path under the leadership of Park Chung-Hee in the 1960s.

Malaysia, which was formed in 1963, began its own industrialization process in the early 1970s. The industrial sector grew rapidly from early 1980s under the Mahathir's administration. One of the important development policies of Mahathir's administration was the "Look East Policy". After witnessing the success of Japan and Korea in developing their industrial sectors, Mahathir determined to learn from these two countries concerning how to become a technology driven economy. Despite almost 30 years of effort, Malaysia has not matched the successes of Korea or Japan. Some economic development models were copied from the countries to be applied in Malaysia, but little success was had. For example, the national automotive and steel industries of Malaysia were copied from similar models in Japan and Korea. However, these two national projects were unable to become export-oriented industries as they had done in Korea. Certainly many factors contributed toward these differences in achievement. To investigate why Malaysia was unable to replicate the successes of Korea, this paper focuses only on cultural factor, by examining how different cultural values have affected the development process.

5.1 Economic Background of South Korea and Malaysia

Korea has been transformed from a subsistence agricultural economy into an industrialized economy over the past five decades. As late as 1961, Korea suffered from nearly all the difficulties facing most poor countries today, Korea's per capita gross national product (GNP) was less than of Sudan and less than

one-third that of Mexico in 1961 (Kim 1997). After the Korean War, Korea was heavily dependent on foreign aid from the U.S., particularly during Syngman Rhee's administration. However, from 1961, under strong government leadership, sound economic planning, and hard work on the part of its people, Korea has overcome its innate lack of resources and achieved an impressive annual growth rate of over 9% in GNP (Yoo and Lee 1987). Korea's annual manufacturing output growth rate has been nearly 20% and its export growth rate over 30% (Yoo and Lee 1987). Korea wealth progress has been continued to improve despite occasional economic crises.

After five decades of hard work by its people, leadership, entrepreneurs, and laborers, Korea has emerged as one of the powerhouse economies of the world, with a GDP per capita of more than USD20, 000. The success of Korea has often been described as "The Miracle of the Han River". So, the question here is how many countries can do the same as what Korea has achieved? What are the main factors of behind its success? Does the culture play a significant role? Countries belonging to different cultural blocs, such as the Philippines, Indonesia, and Sudan were richer than Korea five decades ago; but today these countries are still trapped in their developing nation status and with various developmental problems. Interestingly, Korea's neighboring economies belonging to the same cultural bloc, such as Taiwan, Hong Kong, Singapore, and China have also achieved remarkable growth much as Korea had done. Thus, the Korean miracle was not the only the miracle economy of East Asia, the miracle having been shared among other Sinic-Confucian countries. But what is impressive is Korea's

growth rate, which has remained consistently high and has continued rise. World-class multinational companies from these countries have grown rapidly and gained in strength. Certainly, cultural factors must play an important role since all of these fast growing economies belong to the same cultural bloc. Huntington (2000) also argues that culture accounts for much of Korea's success.

Malaysia, which is altogether culturally different from Korea, is not only richer in natural resources, but was economically more prosperous than Korea until 1970s. Malaysia had similar income levels to Korea in early 1980s, but has started to fall behind from the mid-1980s, and the income gap between the two countries has grown year by year. For instance, in 1980, the GDP per capita, based on purchasing power parity, of South Korea and Malaysia was USD2301 and USD2351 respectively, and then rose to USD7825 for Korea and USD4840 for Malaysia in 1990. The income differences between these two countries continued to widen after the 1997 financial crisis. In 2000, Korea and Malaysia's GDP per capita, based on purchasing power parity, was USD16,495 and USD9,169 respectively, and this figure rose to USD29350 for Korea and USD14,276 for Malaysia in 2010 (World Economic Indicator 2010). The economic performance of South Korea remains strong today with its excellent performance in the technology export sector; while Malaysia is still struggling to get out from the middle income trap. After the 1997 financial crisis, South Korea underwent a series of reforms which resulted in a more diverse economy. The technology intensive industries, such as steel, electronics, and automotive, have continued their remarkable performance. POSCO steel remains the top steel

company in the world. Samsung Electronics, particularly its hand phone business, occupies a huge portion of the world handset market and has become the world's top mobile phone manufacturing firm. From technology follower to an innovator, Samsung Electronics was ranked third in the world in terms of innovation in 2013, just behind Apple and Google, according to global consulting firm Boston Consulting Group (BCG) (Korea Times 17 Jan 2013). Hyundai's automotive operations have also performed excellently, seeing rising sales on the world market. In 2009, Hyundai has supplanted Ford as the fourth largest manufacturer of motor vehicles according to the *Organisation Internationale des Constructeurs d'Automobiles* (International Organization of Motor Vehicle Manufacturers) (2010). According to Thomson Reuters 2012's top 100 global innovators, South Korea contributed seven institutions/companies[10] to the list, demonstrating the powerful innovation capacity of Korean research institutes and corporations. Sustainable innovation capacity plays a crucial role in ensuring the nation's productivity and prosperity.

In addition to the contribution technology industry, Korea's recent economic growth has also been supported by new industries, particularly the cultural industry and health tourism. The Korean pop-culture and health tourism (esp. cosmetic surgery) has been a growth sector since 1997. Foreign tourists to

[10] The top Korea's innovators are KAIST, Korea Electronic Technology Institute, Korea Research Institute of Chemical Technology, LG Electronics, LSIS, Pohang University of Sciences and Technology and Samsung Electronics. The ranking is mainly based on the production of new patents in recent years.

Korea rose substantially in recent years thanks to the influence of the "Korean wave".

In comparing Korea and Malaysia, Malaysia has been benefited much from its natural resources since the industrialization of the 1970s. The abundance of mineral resources has allowed Malaysian industries to purchase oil at a lower cost thanks to generous government subsidies; where much of the government revenue is derived from taxes on oil. Until early 1980s, Malaysia's export market was contributed to primarily by the commodities sector, particularly agricultural and oil products. As an oil and gas exporter, Malaysia has profited from higher world energy prices in recent years, but these precious natural resources are predicted to dry up soon. According to the International Energy Agency (IEA), Malaysia is projected to become a net importer of oil and gas by 2017 (The Star 2012). Thus, the Malaysian government that was once dependent on revenues from taxes on oil now has no choice but to find an alternative way revenue source.

Similar to Korea, the Malaysian government has worked very hard to transform the Malaysian economy to one that is driven by innovation. However, unlike Korea, these efforts have failed to pay dividends. While the Najib administration had attempted to liberalize the economy under the 2010 Economic Transformation Program, it was overturned by the race-based 2013 Bumiputra Economic Empowerment Agenda due to local political pressure. The Economic Transformation Program, which promised a merit-based transformation program regardless of ethnicity, was seen as a forward-thinking policy to bring Malaysia out from middle-income trap. Nonetheless, by shifting the economic priority

back to racial-based development undermined national competitive growth. The change of policy and deference to ethnic-issues highlights the important influence of nationalism among Malay leaders with respects to national policy making.

Today, the Malaysian economy not only faces the challenges of managing multi-ethnic economy, but also of losing its attraction to FDI and declining oil resources. Based on Figure 3.4 (p.53), showing the GDP per capita comparison between Malaysia and Korea from 1970 – 2009, it is evident that Malaysia has been falling further behind with growing income gaps year by year. Certainly there are many factors contributing to this difference, but this paper only focuses on cultural factors and investigates how these cultural factors affect economic activities, policy making, and business performance. Particular attention is paid to the cultural dimensions of Individualism-Collectivism, Uncertainty Avoidance and Openness.

5.2 Collectivism/Individualism of South Korea and Malaysia

From this study's quantitative analysis, the result showed that both Korea and Malaysia are collectivist cultures. Korea's Individualism Index score was 46%, while Malaysia's index score was only 8%. Individualism Index scores are brought down by the valuing of collectivism; therefore, the more collectivist the society, the lower the Individualism Index score. In short, Malaysian society is

considerably more collectivist than Korea from this study's findings. The index score is based on four proxy values, namely "importance of freedom of speech", "importance of maintaining order in the nation", "goal in life should be to seek to be myself rather than follow others", and "to make parents proud". Previous studies by Hofstede (2001) demonstrate that Korea and Malaysia are collectivist cultures, with Malaysia scoring 26 and Korea 18 on Hofstede's Individualism/Collectivism index, lower scores indicating higher levels of collectivism. According to Hofstede (2001), people in individualist societies are expected to look after themselves and their immediate family only. Individualism emphasizes self-orientation, performance-orientation, challenge-orientation, freedom, and right to both a private life and personal time. These characteristics complement capitalism, particularly the calculative culture, performance orientation, and materialism. Although Hofstede (2001) suggested over 70 variables to describe Individualism/Collectivism, he only asked two questions in his survey to measure Individualism, and two questions to measure Collectivism. In his questionnaire, the VSM 8 2008 (Hofstede's centre), the question Hofstede asks respondents is;

> …Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to have sufficient time for your personal or home life (to measure Individualism), do work that is interesting (to measure Individualism), have a job respected by your family and friends (to measure Collectivism) and

have security of employment (to measure Collectivism) (Hofstede's VSM 8, 2008)

Based on the responses to this question, Koreans were found to be more collectivist than Malaysians. Hofstede's study did not test the relationship between Individualism and innovation; however, his study did allude to a relationship between Individualism and a country's wealth. Table 5.1 below, summarizes the findings of this study and previous studies concerning Korea and Malaysia's Collectivism Index.

Table 5.1 Individualism- Collectivism's study finding for South Korea and Malaysia

Study	South Korea	Malaysia
This study[11]	Low individualism (46)	Low individualism (8) - more collectivist
Hofstede (2001)[12]	Low individualism (18) - more collectivist	Low individualism (26)
Moon (2001)	Moderate individualism - middle ranking	NA
House (2004)'s GLOBE project[13]	moderate collectivist (in-group collectivism score 5.41)	Moderate collectivist - more collectivist) (in-group collectivism score 5.85)

[11] Higher score indicate more individualism
[12] Higher score indicate more individualism
[13] Higher score indicate less individualism or more collectivist

Table 5.2 below shows the World Values Survey's findings, which includes measures of Individualism. Malaysia was found to be slightly more collectivist compared to Korea.

Table 5.2 Individualism values comparison between Korea and Malaysia

	Collectivist	Individualist	Collectivist	Individualist
	One of main goals in life has been to make my parents proud(mentioned strongly agree and agree)	I seek to be myself rather than to follow others(mentioned strongly agree to agree)	Mentioned maintaining order is the most important	Mentioned protecting freedom of speech is the most important
Malaysia	94.9%	91%	57.6%	4.8%
Korea	72.5%	87.5%	35.4%	1.3%

Source: World Values Survey Wave 5: 2005-2009.

In House's (2000) GLOBE research project, which investigated the cultures of middle managers across 62 countries, Malaysia was found to be more collectivist than Korea. The in-group collectivism score for Malaysia was 5.85, while Korea is scored at 5.41; the higher score indicating greater collectivism. In Moon's (2001, 2004) study, Korea was also found to be more collectivist. Moon (2001; 2004) used hard data from the IPS National Competitiveness Report (2003) as the source for cultural value and competitiveness performance data. Moon's (2001, 2004) research methods differ from Hofstede's where the proxies he used for measuring individualism were reward and responsibility. The sub-variables

under reward include reward systems, firm decision processes, and professional compensation; sub-variables under responsibility included job descriptions, individual roles, corporation governance, and labor-management relationships.

Moon (2004) suggests employees are inspired and more innovative when reward systems are based on performance rather than seniority, professionals are appropriately compensated, and the firm's decision process is transparent. Moon and Choi (2001) demonstrate that in a culture with high individualism, people are given full responsibility for their work. If a person is able, devoted, and diligent, a bonus, promotion, vacation, or higher reputation is rewarded (Moon and Choi 2001). People within society are motivated by the prospect of receiving higher rewards (Moon and Choi 2001). This in turn leads to strong and active competition among people, driving them toward the development of new ideas, higher standards of quality of technology, etc. (Moon and Choi 2001). In contrast, if both responsibility and reward are low, there will be little progress (Moon and Choi 2001) Thus, the higher the level of individualism, the higher the wealth performance. However, in the case of Korea and Malaysia, because both are collectivist societies with few differences, this study investigates role of collectivist values on national development policies, which have affected national competitiveness from the 1960s through to the present.

Pearson correlation testing within this study has shown that Individualism has a strong positive relationship with innovation. Two exceptions to this are Japan and South Korea which are both collectivist societies, but highly innovative. According to Thomson Reuter's (2013) report, the top global

innovators are mainly from individualist societies such as the U.S., Switzerland, Finland, France, Germany, Netherland, Norway, Canada, and Australia. However, collectivist societies such as Japan and Korea can also be innovators. As revealed in Figure 4.4, the position of Japan and Korea are contradictory. This indicates that collectivism was not an insurmountable obstacle against the creation of an innovative economy for either Japan or Korea, but the future sustainability of these countries innovation remains a question. In addition, since most technology pioneers are from western individualist cultures, particularly the U.S, this might suggest that if Japan and Korea want to achieve higher levels of innovation and come to be technology leaders, some essential aspects of individualism may help these two countries to achieve higher levels of innovation. This assumption is proven through a specific country study of Korea, where Korean technology firms have begun to face management problems under the dominant collectivist culture, particularly in relation to rigid hierarchical structures and seniority-based reward systems. The 1997 financial crisis was a crucial shifting point for many Korean firms which necessitated a series of reforms. Korean firms begun to replace their traditional management cultures with global standard management systems, for example, replacing the seniority-based reward system with a performance-based system which has subsequently become the dominant reward system in Korean organizations since 1997.

In the following section, will see how Korean collectivism works, how it influences Korea's development progress, how it contributed to the birth of Korean technology firms, particularly in the initial stage of industrialization, and

how the Korean firms reformed their management systems away from collectivism and refocused on individualism (i.e. performance-based, flexible employment) after 1997 to enhance their competitiveness.

5.3 Korea's Collectivism/Individualism and its Impacts on Competitiveness.

Traditionally, Korea has been a highly structured and homogeneous society characterized by strong social pressures to act, conform, obey, and belong based on a number of family and social groups (Milliman and Kim 1993). The strong collectivism of Korea is not merely influenced by Confucianism, but also through the national education system. Another factor influencing the collectivism of most Koreans is the military system. The Korean military system, which subjects all male Koreans to a mandatory service of about two years, and the militaristic system of governance that dominated Korea for much of its early industrial history, have made differentiating between a militaristic national and corporate culture somewhat difficult. This is especially pertinent since male workers comprise the majority of the total active workforce in Korea today.

According to Hofstede (2001), Korea is high in power distance and low in individualism (Power Distance Index = 60; Individualism = 18). Therefore, it is not surprising that the Korean leadership style is perceived as autocratic and group focused, especially during the early stages of industrialization. This perception has been reinforced by several studies of Korean leadership

suggesting that it is hierarchically authoritative and paternalistic (Yang 2006). Good examples of this paternalistic hierarchical authority include Park Chung-Hee and Chun Doo Hwan, both characterized as dictators for their autocratic leadership. Although the hierarchical structure limits the flexibility of management, it also allows for quick decision making (Yang 2006). In the Korean management system, group harmony or group consciousness is strongly emphasized and is held to be a critical value for many organizations. These strong collectivist values encourage a strong Korean team spirit that drives performance. Collectivism fosters strong relationships where everyone takes responsibility for their fellow group members (Hofstede 1980). The more collectivist a culture, the more likely workers are to accept such team-based work arrangements.

Although this study's statistical analysis highlights the positive relationship between Individualism and innovation, the strong innovative performance of Korea and Japan is in stark contrast to this earlier finding. Therefore, collectivist cultures might also be innovation-driven economies, at least in the early stages of development, perhaps due to the supportive values of collectivism, particularly the working team spirit and ethic of working hard for group interests. Nonetheless, what is important now is innovation sustainability, the ability to be the pioneers in inventing new technology, new products and new ideas in the long run. Collectivist values may have helped Korea to be innovative and achieve in the face of post-war economic hardship and a looming economic disaster in the form of the 1997 financial crisis; but the adoption of some core individualist

values may be necessary for Korea to achieve higher levels of prosperity as the economy enters an innovation-driven stage. Nevertheless, investigating the role of collectivism is necessary since Korea remains a paradoxically innovative collectivist culture.

There are many stories extolling the virtues of Korea's strong collectivist culture and how it has contributed to their economy. One such story is that of Korea's POSCO steel company, which was started with almost nothing in 1960s to become a world class steel company two decades later. Former POSCO president Park Tae-Joon, who has always emphasized patriotic work hard with his famous motto "make steel, serve the country", stimulated the patriotic spirit of Korean workers across the country to work day and night for the benefit of the country. The "make steel, serve the country" motto and "turn right" spirit, was laid as the mental foundation of POSCO and bound every POSCO worker together when Park Tae-joon first set POSCO on its path to becoming the industrial giant that it is today. The `turn right` spirit expressed Park Tae-Joon's firm will to successfully build the steelworks into an industrial giant, which was based on the sacrifice expected of POSCO board members, that they be willing to throw themselves into the Yeongil Bay by turning right from the steelworks construction site if they could not succeed in meeting objectives (KBS World, 2011). The success story of POSCO has earned Park Tae-Joon near legendary status from steel experts around the world. Today, POSCO steel is ranked as one of the top innovative companies in the world. The patriotism of its industry

leaders and workers has built a strong hard-working culture that appreciates discipline and determination, important factors in producing quality.

The patriotic spirit that makes the general Korean willing to sacrifice own benefit for the country can be seen in people's general attitudes. For example, in 2010, a 60 years old Korean man named Ahn Seung-pil won the largest jackpot ever at Kangwon Land Korea, but decided to donate the prize money (USD $700,000) to the Korea Advance Institute of Science and Technology (KAIST) (Korea Times 17 May 2010). The winner said, "After winning the money, I first though about donating it to help the unfortunate, but after watching a TV program emphasizing the importance of advanced science and technology to Koreas' future, I decided to give the money to KAIST" (Korea Times 17 May 2010). KAIST, the Korea Advance Institute of Science and Technology, is a graduate school specializing in science and engineering education and research. Due to the high volume of new patents being produced by KAIST, the school was ranked as one of top 100 innovators in the world in 2012 by Thomson Reuters. The generosity of Ahn in donating his prize money to KAIST is an expression of the collectivist sprit of South Korea and of the pervasiveness of their concern for R&D investment. With a populace willing to sacrifice personal benefits for nation gain, it is easier for Korea to move forward as a nation on the collective shoulders of her people.

Korean nationalism and patriotism is also behind the success of the "buy local product" strategy. Supporting local Korean firms by local Korean firms has been integral to the growth of many local firms. According to Korean news portal,

Segye Ilbo (1 January 1998*;* cited Park, Jang and Lee 2007), a survey conducted shortly after the 1997 financial crisis indicated that Koreans still leaned toward nationalism; with 78.1% of respondents answering positively the question, "Are you willing to purchase and use products made only by Korean companies, regardless of their price or quality, to overcome the economic crisis?"; and a further 93.4% respondents said "Yes" to the question, "Will you join the movements and campaigns for working one hour more and/or working on a rest day to help the country overcome the economic crisis?". Such a public mindset has paved the way for a something very uniquely Korean, "nationalistic marketing strategies" (Park, Jang and Lee 2007). For example, a Korean firm launched into the beverage market with a new brand, "Independent Coke 815" and successfully exceeded the market shares of Coca-Cola and Pepsi for a while (Park, Jang and Lee 2007). In a similar vein, the Hangul & Computer Company narrowly escaped being taken over by Microsoft with the help of a nationwide donation campaign which resulted in the company renaming its flagship office application "Hancom Version 815". These are among just some of the cases where national identity politics have been instrumental in steering the course of the Korean economic landscape (Park, Jang and Lee 2007).

The strong sense of self-sacrifice and loyalty to firm and nation has enabled the Korean government to push national economic growth as a collective obligation and a civic duty. This explains how collectivism made the Korean economy more dynamic, particularly during the early stages of industrialization.

5.3.1 National leadership values and their influences on Korea's early development

Previous studies suggested that patriotism plays a major part in the economic modernization and industrialization of Korea, especially in the initial stages of industrialization (Kim 1986; Kim and Park 2003). The strong desire to serve and work for the country was particularly strong during Park Chung Hee's era from 1960s to 1970s. From the top national leader and entrepreneurs, to South Korean laborers, patriotism and devotion to the country were strongly expressed in the South Korean society. During Park Chung Hee's era, the South Koreans were stimulated to commit themselves to national development by equating economy development with national goal (Kim and Park 2003). The foundation of South Korean industries was firmly laid and government policies had benefitted many South Korean technology firms.

There are a number of factors for the formation of collectivistic culture in South Korean society. Government's role in particularly, was very essential in inspiring the Korean collectivistic spirit during 1960s-1970s. This was done not only through government slogans, school education, but also through compulsory military training for every male adult as well as national development policy which affected the entrepreneurs and workers' work ethics. National campaigns under the Park Chung Hee's government, people were reminded everyday with the slogans of "*kugwi sonyang*" (enhancing national prestige), "*kungnyok*" (enhancing national strength), "*oehwa hoektuk*" (earning foreign exchange),

which emphasized the collective goal (Kim 1986). The campaigns were promoted through the wise use of mass media, including television, radio, newspapers and magazines.

Among the Korean leaders, Park Chung Hee is recognized as Korea's most effective country chief who had successfully transformed the South Korean economy by reconstructing national culture, which Park called it "human revolution". He stresses the need for collectivist mentality for achieving national strength, urged the people to be diligent, independent, confident and the need to sacrifice own interests for national gains. Moon (2008) stated that "Park's strong patriotism is evident in his total dedication to the reconstruction of the nation through modernization by all means, revolutionizing Korean mentality and achieving a self-reliant national defense; he is also praised for reviving national culture and tradition to help establish a national identity in the process of modernization." When Korea was in extreme poverty and chaos, Park Chung Hee (1970, p.ix) affirmed that mental revolution was necessary for Korean people. Park states that:

> …A nationwide movement must be begun to train the people in the sound ethics required by democratic citizens…one might as well expect a rose to flower from a garbage box as expect democracy to succeed in Korea, it is our duty to make use of the garbage box full of past failures as fertilizer which will nurture a beautiful rose of democracy (Park Chung Hee 1970, p.ix)...

The positive attitude of "we can do anything" and the expression *jalsaraboja* (Let us have a better life) as well as the motto " the better the economy is, the better the life is for every worker" were government slogans which attempted to propagate the positive meaning of industrial work and organization during Park Chung Hee time (Kim and Park 2003). To transform the South Korean economy, Park Chung Hee thought that cultural revolution was necessary for the South Korean people. South Korea, as a country which had been poor for a thousand years, believed that the country needed a national awakening program in order to implant the spirit of being confident. Park stated that:

> …We must reflect upon the evil legacies of our past history, slough way the factional consciousness inherited from the Yi dynasty, and the slavish mentality resulting from the Japanese colonial rule, and firmly establish a sound National ethics. Without a human revolution, social reconstruction is impossible…a nationwide movement must be begun to train the people in the sound ethics required by democratic citizens (Park Chung Hee 1970, p.vii)…

Through the national reformation campaign, Park launched the "national awakening" program to motivate the people to work hard for the country. Industrial workers were described as "*shu'chul pyong sha*" (export warriors) to enable South Korea to achieve the "*sonjin-guk*" (developed nation) status. Park Chung hee (1970, p.27) emphasized the necessity to instill national

consciousness. Park Chung Hee (1970) stressed that every individual must sacrifice their own interest for the sake of society, for the better future of nation, and for the harmony. He stated that:

> …when the interests of the whole are in conflict with the interest of a given individual, we must endeavor to seek agreement through the self-sacrifice and self-control of the individual. Such self-sacrifice and self-control in the interest of the whole is only common sense, and from the national standpoint constitutes the national conscience. Only when common sense has been restored and national conscience revived can we realize social justice whereby the whole people can enjoy prosperity (32)…

Thus, nation's industrial policies at that time was completely collectivistic where national interest was given top priority, issues of individual freedom and human rights had been sidelined. For instance, the South Korean workers' welfare and rights had been sacrificed to keep industrial costs low, and in order to help South Korean industrialists to be cost competitive in the international market and to increase the nation's exports.

- *Sacrificing workers' welfare for faster growth of Korean firms*

As a leader who stressed the needs for "self-sacrifice", Park Chung Hee's used this principle to justify his workers suppression policy, where Korean workers were required to work long hours with low wages, no bargaining power and

discouraged from questioning laborers' right. The main reason was to help South Korean industrialists to produce goods and services at a low cost and able to expand its export market. To achieve the national export goal, workers were urged to accomplish the national obligation by sacrificing own individual interest. Based on this principle, trade unions were totally banned where the laborers' activities were controlled by the state in the form of direct intervention by the police and national security agencies. By emphasizing national economic goal and to achieve the export target, and to make South Korean products competitively priced, laborer were forced to work with extreme low wages and long hours. The policy was good for the employers but not good for the employees. Korean newspaper-Gyunghyang daily news (27 Oct 1970) described the working condition in a textile factory:

> …Young girls are working in a small room as long as 16 hours a day, with extremely low wages and even industrial disease…the workplaces, which are smaller than eight sg m, are so packed with 15 workers, sewing machines and other machinery that people can hardly move… the ceiling is just 1.5 meters, making the workers not able to stretch their waists… with two days off only in a month (cited Chang 2009, p.98)..

This story describes the oppressive work environment of the textile industry where female workers were placed under the low-paid system. Even though laborers continued to ask for wage rise and more holidays, most of the time it

was rejected by the authority with government support. Another example from KSEC, which was quoted in Nam (2009, p.92), tells how management authority justified its anti-labor policy by mentioning the importance of collectivistic spirit.

> …In January 20, 1964, when the KSEC union asked for a 4,500won raise at a Labor-Management Council meeting, the president of the company began by urging to the union representatives about the importance of raising efficiency and conforming to a diligent work ethic, which he concluded that "all the employees should tighten their belts" in the spirit of labor-management cooperation until 1966 in support of the nations' First Five-Year Plan for economic development. A company auditor also urged that: "We should not think of ourselves separately as union men or managers. We should worry together and try together to find solutions as members of one family". So Taewan, who represent the labor union protested, saying that in 1963 the company registered "net profit of 23 million won, which is enough to cover 100percent of the raise demanded by the union… It is essential to help workers who do hard physical labor on a diet of a 10-won piece of bread so that they can maintain their physical strength better." The "one-family" rhetoric notwithstanding, management merely repeated its

> emphasis on a diligent "working spirit" and ignoring the requirement by So Taewan (Nam 2009, p.92)...

Under the "development first" strategy, national interest was more important than anything else in Park's era, where laborers should not be demanding when the country was still in need of more capital. Under the collectivistic mind, Park gave his strong support to the industries, but at the expense and sacrifice of workers' welfare. To Park Chung Hee, nothing was more urgent than solving the poverty problem. In facing the North Korean threat, Park Chung Hee thought that the South Korean economy must be developed in order to become a powerful nation. Government was acting like the chief of industries, and entrepreneurs were like the captain of industries, while workers were described as "export warriors" (*soochooljeonsa*) or industrial soldiers (*saneobyongsa*) that carried the national task to achieve the nation's export target. In addition, corporate slogans, such as "Let's catch up with Japan", "Let's beat Japan" were also utilized by the government to motivate workers to work (Kim and Park 2003, p. 42). South Korea lacked capital and workers were told to endure the hardship associated with low incomes and poor working condition for the time being.

In order to compete internationally, South Korea must be able to price their products competitively. Therefore, workers were reminded that working in the industries was not only for self-survival but it was an obligation to help the nation's industries to grow, to strengthen South Korean economic power and to make South Korea better in the future. Collectivism and patriotism had

functioned as a national ideology in motivating laborers to work. Creating favorable conditions for rapid industrialization not only requires cheap labour, but also the absence of labor disputes. Hence, the Park's government prohibited union activities and suppressed collective bargaining. In collectivistic culture, fulfilling obligation to society is always more important than protecting human rights.

After two decades of workers' sweat under an authoritarian regime enforcing an "underpaid" system, Park had successfully enhanced South Korean industries' competiveness in a short period of time; enabling local South Korean industries to substantially improve its image the international market. The labor intensive industries, such as footwear and textile industry, enjoyed fruitful results. Through cost competitiveness, Korean's exports increased tremendously from USD55million in 1962 to USD17, 214 million in 1980, a 300 fold increase within 20 years. The Korean workers had certainly played a significant role, they showed that the self-sacrificed spirit helped (although unwillingly in many cases). Loy (2008) commented that "… the Korean workers accommodative behavior towards low wages, long working hours, high productivity and a bad work environment are better explained by looking at the state is repressive labor policies… culture had functioned as a "hegemonic ideology" to legitimize state repression." Song (1997, p.99) stated that export firms in Korea had benefited from the low wages that helped maintain international competitiveness and from enforced freedom from labor unrest.

In the late 1970s, when Park Chung Hee was facing people's protest in the Yushin constitution, and issues of labor's right, he again reminded his people about the importance of the collectivistic spirit. Park Chung Hee (1979, p. 60-61) wrote that:

> …Whenever a society is given to extreme individual or collective rationalism and when such rationalism produces fragmented individualism, the resultant conflicts and confrontation degenerates into an uncontrollable state of chaos. Attempts by individuals or groups to maximize their immediate advantage may seem rational at some point, but when seen from a social point of view, they are not only irrational but sometimes become dangerous. ..It might result in a case of individual interest leading to a collective unhappiness. I tend to think that much of today's economic woes in Western Europe have been caused by extreme egoism of individuals and groups… If a railway goes on strike, the foodstuff industry that depends on transportation is affected, which in turn causes problems at the consumers' table. Such interdependence lays an entire society vulnerable to collective action by any small group. No country in the world has enough resources and wealth to satisfy everyone's demands. As a result, the government

> ends up satisfying one group at the expense of another (1979, p. 60)…

In Park Chung Hee's view, Korean industrialization need the people's collectivistic spirit, the "*woori*" culture must be promoted. Through the "*woori*" culture, Korean industries would be able to grow faster with the collective strength of its people. Human rights were not the urgent issue, but eradicating poverty was more important. Thus, the duty of helping oneself and helping others in making lives better in terms of economics was emphasized in the Park's policy. Labor rights and welfare had been subordinated to the accomplishment of rapid economic growth. To strengthen workers' commitment to work, Park Chung Hee urged workers to work as if they owned the business, requested workers to be as dedicated to the firm as they would be to their parents, and employers were asked to treat the workers like members of their own family. Posters and brochures containing the work-exalting slogans were found on the walls in workplaces and on street billboards. Banners on the streets and those hanging from the top of buildings were to ensure that there everyone was made aware of the urgency of industrialization (Kim and Park 2003). Through the promotion of loyalty value to firm and concept of paternalism, national campaigns had successfully enhanced workers' work attitudes and performance. Lee and Johnson (1998, p.78 cited Bae and Lawley 2000) argued that "Managerial values of loyalty, cooperation and harmony underlie most of Korean firm's labor policy. These values engage well with high-involvement work systems. Loyalty to the firm made workers to work

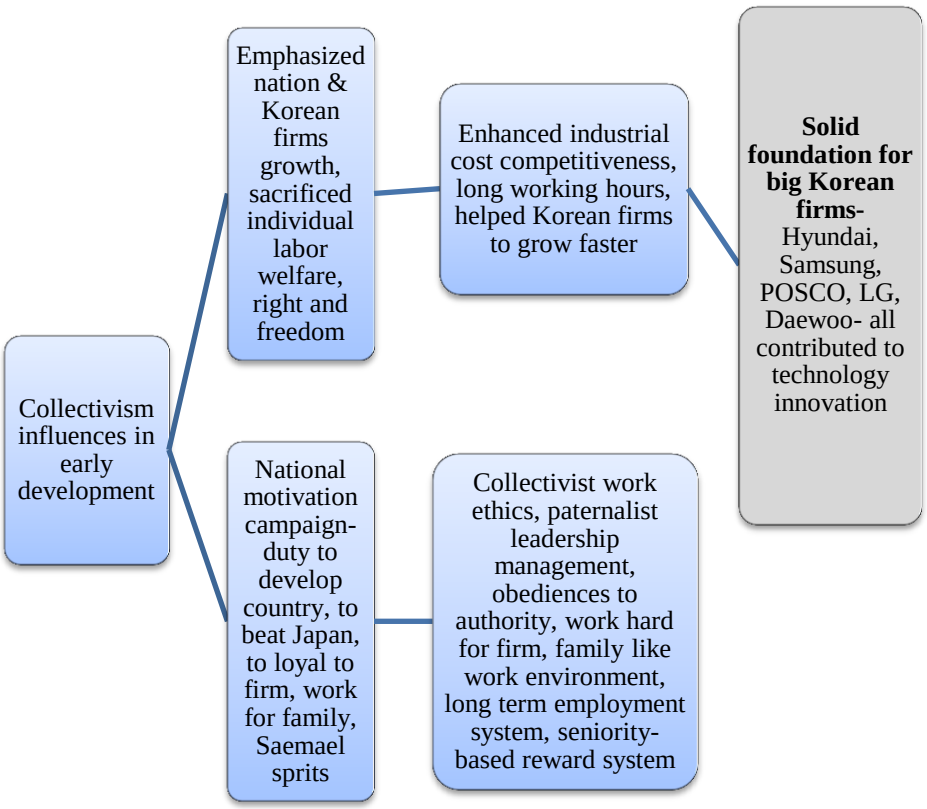
hard and the cooperation spirit strengthened team power. Kim (2010, p.6) stated that;

> …Korea industrialization process if full of touching stories…Park Chung-hee went to Germany to borrow funds, but the banks refused to lend Korea any money. Hearing this, the Korean miners working there pledged their wages for the next 20 years as collateral. Park and the miners cried together and Park returned home with the money. In Vietnam, our young soldiers sent home all their dollar-denominated wages earned in the bloody battlefields. The money was used well to invest in industrialization. Young women from the country worked hard in factories and sweatshops, and many laborers sweated on the construction sites of Middle East during the boom days… there was a considerable consensus among the people about the national motto of building the economy to lead better lives (Kim 2010, p.6)…

The story tells how the collectivistic sprit served as the mobilization source to make individual willingly subordinate their own goals. Kim and Park (2003) argued that both the workers' voluntary participation in industrial work and the harmony in the workplace, which were two of the most essential factors in the nation's remarkable economic success during the 1960s and 1970s, were intimately linked to a new ideology of work and entrepreneurship which

combined nationalism and pro-growth Confucian precepts. The figure below illustrates the links between the collectivist values, development policies and its results.

Figure 5.1 Collectivism influence on Korea's early development



As Chang (2012, p.1438) pointed out that the growth of *chaebol* firms was initiated and steered by the Korean government-led authorities. The influence of the government in Korean societies has been strong and has actively engaged in the industrial development processes. Several studies (example Cumings 1984;

Koo 1984; Kang 1998) suggested that the role of the authoritarian state as being responsible for the creation of *chaebol* firms. One of the unique and common characteristics of Korean HRM is authoritarianism but paternalistic leadership reinforced by a clear hierarchical order and vertical communication.

5.3.2 Korean entrepreneur's collectivism values and business success.

The Korean entrepreneurs, who laid the foundations for the success of Korean industries and innovation, are among the country's patriots who have devoted themselves to the modern nation-making process when Korea knew extreme poverty with and had few economic prospects. Park Tae-joon, who built the first steelworks in Korea, laid the foundation for Korea's heavy chemical industries and made POSCO the industrial giant that it is today. Chung Ju-Yong, the Hyundai group founder, built Korea's first cross-country expressway, exported the first Korean-made car, built Korea's first oil tanker, and Korea's first ship. Lee Byung-chul and Lee Kun-hee, the Samsung group leaders, are described as paternalistic, hardworking and smart, and have exploited the Korean collectivist sprit to motivate their workers to be both productive and innovative. Many of the founding fathers of Korea's modern Korean industry, worked in collaboration with the Park government to achieve national prosperity and overcome challenges facing the nation.

Korea in the 1960s was seen as a basket case, a country without capital, without technology, without expertise, but with an abundance of cheap labor. To

remake Korea into an industrial powerhouse, Park Chung Hee believed that Korea needed frontier entrepreneurs, who could help Korean industries to succeed in the international market and to mobilize resources in an efficient way. Consequently, Park selected a few dozen firms which were unparalleled major privileges and government support to produce and export as much as possible. Among the entrepreneurs, Park Tae-joon, Chung Ju-yong, and Lee Byung-chul were the lucky frontiersmen chosen at that time. Although the choice of the candidates was based largely on Park's personnel preferences, their success in developing Korean industry into the world class player that it is proves that the choice was not merely based on personal relationships. By focusing the nation's capital and technology on a few select industries run by a limited number of business groups, Korea impressively transformed itself in record time. Without doubt, Korea's early entrepreneur played a crucial role in the nation building process.

Early Korean entrepreneurs were often portrayed as frontiersmen, risk-takers, confident, and patriotic. They aspired not simply to amass personal fortunes; but to benefit their nation. They played their roles as the captains industry by utilizing the limited resources Korea had to offer and producing the maximum output. They were seen as embodiment of Korea's economic miracle and industrial leaders of unprecedented transformation.

When the Park government decided to develop the heavy and petrochemical industries, someone was needed to make the steel locally, and Park Chung-hee chose Park Tae–joon as the man for the job. In light of the extraordinary success

of POSCO, Park Tae–joon was clearly the right choice. Park Chung-hee and Park Tae-joon shared the belief that industrialization was a national imperative if Korea was ever to be free from poverty, and as a means of improving the daily lives of the people and developing the national economy (Yoo 2011). Without steel, it would have been impossible to build ship, automobiles, bridges, and buildings. Much of Korea's economic infrastructure has been dependent upon steel. With no technology, no capital, and no expertise in 1960s, Park Tae-joon accepted the challenging task. Under the leadership of Park Tae-joon, POSCO produced 21 million tons of steel annually in his 25 years with the company (1968 – 1992), leading many to compared Park Tae-joon to America's Andrew Carnegie; whose steel production capacity amounted to only 10 million tons annually over 35 years (POSCO press release 2011). In 1998, POSCO was recognized as the world's leading crude steel production company.

To meet the growing need for self-developed technologies or technology independence, POSTECH (Pohang University of Science and Technology) and RIST (Research Institute of Industrial Science and Technology) were established (POSCO website). The FINEX steelmaking process, which is a cutting edge steelmaking technology, was developed by POSCO and commercialized globally, strengthening POSCO's position as a leading global steelmaker. The ability of POSCO to produce low-cost high quality steel made POSCO the "World's Most Competitive Steelmaker" for 4 straight years, as recognized by the World Steel Dynamics (POSCO press release 2013) Although POSCO today is already at the top of its game, it faces tough competition from Japanese and Chinese rivals.

Therefore, POSCO must to work hard to continuously develop new innovative technologies.

The "make steel, serve the country" motto and the "turn right" philosophy are the mental foundations of POSCO which unified its workers since the company was founded in 1968. When Park built the Ilgwan steel mill in the Yeongil Bay in Pohang in 1970, he promised the workers that he would make the mill a great success because it was built with capital allocated from the Japanese (KBS World 19 December 2011). If the business failed, he said he and the mill workers would drown themselves in the bay. The stress of using money obtained from Japan led the workers to exceed in the efforts and to produce more steel then anyone could have anticipated. Korean national pride was at stake and POSCO workers took it upon themselves to protect Korea's reputation. Encouraged by Park Tae-joon's resolve, the workers devoted everything they had to finish the mill's construction six months ahead of schedule, taking only six month to complete construction (KBS World 19 December 2011). It has become a legend in industry, showing how patriotism can motivate even the lowliest of workers to work day and night for the future of a nation. During Park Tae-joon's speech to employees, Park stated:

> …Why did we make this company? How have we developed this company? For our country to overcome poverty…Amidst the crisis due to the betrayal of the international consortium, we transferred part of the funds claimed from Japan for revival. If our company struggles because of the conflict

> between the labor union and management, this is against our duties to the people and ancestors… we cannot be content in being a company that stably supplies the rice of industries to Korea, or earning dollar through exports. Pohang Steelworks in the centuries to come must always be the best and most dignified compared to any steel company in the world. Our company has this goal but it cannot be achieved without the proactive cooperation and participation of our employees (POSCO press release, 2011)…

In 1978, China's Deng Xiaoping, during his visit to Nippon Steel's Kimitsu Works, asked Yoshihiro Inayama, then chairman of Nippon Steel Corporation, to build a steelworks like Pohang Steelworks in China, but received the response that, "China doesn't have Park Tae-joon". This was a famous acknowledgement of Park's leadership (POSCO press release 2011). Yoo Byung Chang[14], who worked in POSCO from 1975 – 2010 stated:

> …Park Tae Joon regarded workers as members of his family. He dreams during sleep, sweet or bitter, were all about the steel company. Overcoming all kinds of difficulties, he accomplished the mission of building two steel mills, in Pohang and Gwangyang in the shortest-ever time. Without

[14] Yoo holding positions including president of POSCO America and CEO of POSDATA, who worked closely with Park Tae Joon

> POSCO, the Korean shipbuilding and automotive industries would not exist as they do now (Yoo Byung Chang 2011)…

The success of Korean firms cannot be attributed solely to the Korean patriotic spirit. The collectivist management style of Korean companies has played significant role in the success of many firms. Korean management culture is characterized as group oriented; centered on values of harmony and cooperation. Lee (1997 cited Rowley and Bay 2004) suggested that the value of harmony was mentioned in the corporate visions of almost 50% of Korean companies. Some of Korea's largest corporations, such as LG, Samsung, Hyundai, and SK demonstrate the importance of unity, cooperation, and devotion to work. Today, LG, Samsung, and Hyundai are major contributors to the national innovation index. According to a study by Thomson Reuters, LG Electronics, Samsung Electronics, and LSIS are ranked among the top 100 global innovators. One thing all of these technology firms have in common is that they were born during Park Chung Hee's era, and slowly developed into the giant technology firms that they are today.

Under Korea's collectivist culture, the vertical top-down decision-making process gives rise to autocratic leadership, but it also enables quick decision-making with ideas coming from the top. For instance, Samsung group's President, Lee Kun-hee has extensive power in policy-making. When Lee Kun-hee suggested that Samsung invest in the automobile industry, although the idea was opposed by many among Samsung's Board of Directors, none voiced their

opposition and ultimately the Board went with Lee Kun-hee's decision. This is different to the Japanese management style which stresses consensus. Hyundai Motor demonstrates similar leadership where subordinates unquestioningly obey and respond quickly to the requests of their leaders. For example, a story reported by Holstein (2013) in which Hyundai Motor's chairman, Chung Mong-koo visited a parts distribution center in California. According to Holstein's (2013) recounting, as Chung Mong-koo walked through the building, he noticed a large pile of remanufactured transmissions which had initially failed and needed to be rebuilt. Chung Mong-koo immediately called for everyone associated with the transmission design and quality control to assemble in California as soon as possible (Holstein 2013). As a result, 20 high level executives from all related divisions flew out from Korea to arrive in California within 24 hours (Holstein 2013). This story demonstrates power of collectivist leaders, where subordinates are absolutely obedient to superiors and terrified of causing any offence.

However, despite the strengths and weaknesses of the collectivist management style, collectivism has been the driving force behind the team spirit of Korea's corporate culture and has most certainly contributed to the growth of Korean firms and the Korean economy. Nevertheless, after Korea developed from a factory-driven economy to an innovation-driven economy, the problems inherent in collectivism became more apparent. The rigidity of the collectivist culture, which restricts the free flow of communications and ideas, has started to undermine the growth of innovation.

5.3.3 Problems of collectivism in Korea's innovative firms and the rise of individualism after 1997.

Collectivism had worked very well in the initial stages of industrialization in South Korea. Under the influence of Confucian values, value of stability and harmony are emphasized in Korean society. In Korean organization, employees are treated like family members and head of organization is like father to the employees. In return, employees remained loyal to the companies and their commitment to work became stronger. This collectivistic management culture indeed had contributed to the growth of Korean firms. With disciplined and loyal workforces, Korean multinational firms had been able to capture international market with its competitively priced products; however, in the long run it would not be sustainable, particularly after Korea achieved the status of an innovation-driven economy in the 1990s.

Samsung Electronics and Hyundai Motor, both conglomerates which had enjoyed the growth in the past decades realized the need to change. To sustain its dynamic growth, producing innovative and good quality of products is needed. The ability to offer cheaper products does not always guarantee success in a changing and highly competitive global market in the face of rising production costs in addition to the emergence of new business rivals such as those from China. After a few decades of development, the traditional vertical hierarchical structure, the resulting inflexibility of the employment system became an

obstacle to Korean technology firms as it has started to show signs of slowing down in the decision making process and discouraging innovation and creativities. Rigidity in the organizational structure and mechanistic cultures do not work well for innovative firms, because employee mobility would be limited; and not conducive to free flow of communication and new ideas. Flexible management or organic structure which allows quick decision making and free flow of new ideas are needed because innovation is about developing and implementing new ideas. During the 1997 global financial crisis, Korean industries were facing intense pressure and their survival threatened. Firms were forced to fundamentally rethink their business strategies and management system. During this period, many firms paved the way to transform themselves from a loss-making company associated with cheap products into global leaders of high-end products (Schmitt, Probst and Tushman 2010).

Korean firms decided to reform the management system, and the majority of the firms were innovative firms. They realized the weaknesses of traditional collectivistic management; the weaknesses of authoritarian leadership, hierarchically structured organization and seniority-based reward system in particular. Collectivism may be suitable during the early stages of industrialization as it focuses on low-tech manufacturing and competitive low-tech products. However, collectivistic and related autocratic/authoritarian leadership style is not conducive to innovation as could be seen in Western innovation companies such as 3M, IBM, Bosch, Siemens, and etc. Globalization imposes pressure on both the South Korean government and companies to change.

Many Koreans who were educated in Western Management philosophy and approaches such as Deming's philosophy, Maslow's theory on Management at American universities would have known the need to transform South Korean management of industrial conglomerates and firms in line with Western management practice through education and practice. For example Lee Kun Hee, the chairman of Samsung group from 1987, obtained his MBA degree from George Washington University and initiated the change in Samsung management system. The traditional tall and vertical hierarchical structure of Samsung was restructured to become flatter. Lee famously said in 1993, "Change everything except your wife and kids". To change a company's corporate culture, management system and structure need to be changed. For instance, the Samsung group used a process known as "twenty-one chops" in the past, which took several months to get a project approved. After Lee became the CEO, he demanded that these twenty-one chops be reduced to three (Paisley 1993, p.64). The decentralization of management continued under Jong Yong Yun in 1996, a former CEO of Samsung Electronics. Yun restructured Samsung by challenging traditional Korean corporate culture characterized by hierarchy and lifetime employment (Roopa and Chaudhuri 2005). Yun emphasized that innovative products were necessary for Samsung's survival. To enhance Samsung's ability to innovate, corporate culture had to be changed and replaced with a new HRM system. To achieve the required flexibility in management, Yun strengthened each business unit power through decentralization. Through decentralization, autonomy of each business unit was strengthened and decision-making process

was simplified and direct involvement of senior executives reduced (Schmitt and Tushman 2010). Every business unit would formulate clear objectives (e.g. market share, innovativeness, quality and profitability) to facilitate the evaluation of the unit's productivity (Roopa and Chaudhuri 2005). To encourage free flow of ideas and communication, formality was eliminated when Yun began his tenure at Samsung and a new culture was introduced at the executive level. Instead of lengthy presentations and reports, senior managers were urged to brainstorm, debate and argue to achieve consensus (Schmitt and Tushman 2010). These discussions at the executive level enabled a better decision-making process, minimizing the risk of uncoordinated or loose links between each business unit (Schmitt and Tushman 2010).

The need to reform became more urgent due to the damage done by the 1997 global financial crisis as neo liberalism began to prevail in Korean public policy, corporate management and human resource management. This brought tremendous changes in many areas of corporate governance, including human resource management (Bae and Rowley 2009, p. 409). Under the government's efforts, a series of reformation efforts was initiated, such as include replacing seniority-based reward system with performance-based system; reducing hierarchically tall and vertical structure and decentralizing management system, implement a flexible employment system and slowly doing away with lifetime employment and ensuring the separation of ownership and management. As Shi (2006) pointed out that the lifetime employment, seniority-based compensation and evaluation systems weakened employees' motivation and thus reducing the

company's productivity and competitiveness, leading to a loss in its competitiveness against its rivals. Since the majority of Korean multinational firms are technology based and innovation-driven, the human resource management system experienced gradual change to meet international standards. Bae and Rowley (2002) illustrated the changes in Korean human resource management as shown in the table below.

Table 5.3 Changes in Korea's human resource management

	Old characteristics with strong collectivism	New characteristics with rise of individualism
Core ideology	Organization first Collective equality Community oriented	Individual respected Individual equity Market principle adopted
Work system	Tall structure Line and staff; function based Position-based	Flat structure Team system Qualification-based
Reward system	Seniority(age, tenure) Pay equality pursued Evaluation to advance in job and grade No appraisal feedback Single-rater appraisal	Ability and performance Merit Pay system Evaluation for pay increases Appraisal feedback 360 degree appraisal

Source: Bae and Rowley 2002, p.411

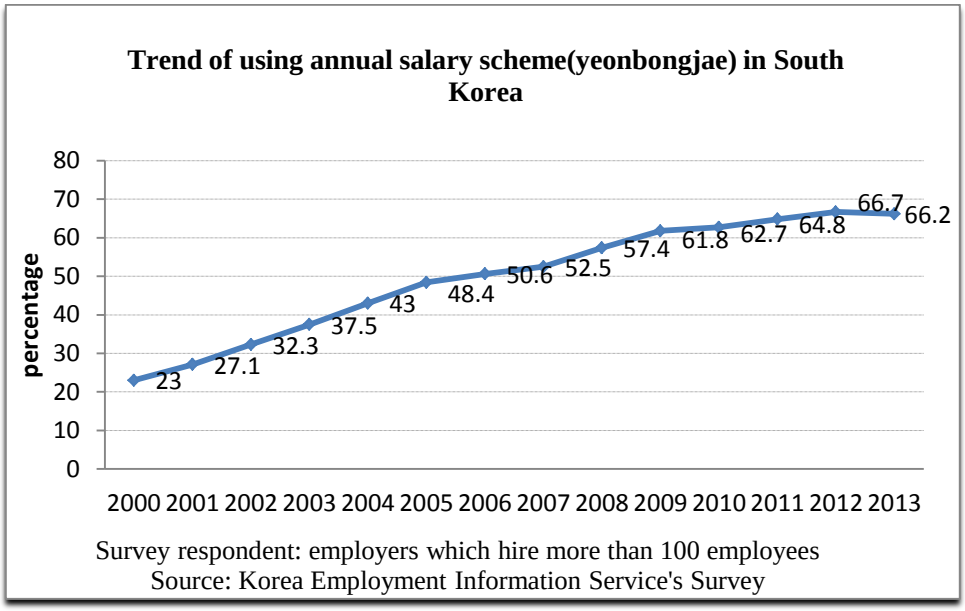
The Korean human resource management has to change in view of the emergence of the knowledge-based economy. Inglehart and Baker (2000) found evidence of values orientation encountering changes when a society shifts from traditional toward secular-rational, and from survival toward self-expression. As a new knowledge-based economy, Korean leaders and entrepreneurs realized the need to adopt a more individualistic approach in their efforts in improving their

levels of competitiveness in a new global economy One of the most significant reforms is to replace the seniority-based reward system with performance-based system. Instead of the seniority-based reward system which rewards employees based on how long they have worked in the organization, merit-based system ensures that employees are rewarded for their contribution to the organization. The seniority-based system encourages stability and harmony but the performance-based system encourages employees to put in more efforts to achieve jobs' target.

- *The shift from seniority-based reward system to performance-based system*

Since 1997, an increasing number of Korean companies and organizations had adopted the performance-based annual salary system and flexible bonus system (see Figure 5.2 below). Seniority-based pay system though remained as important practices among Korean companies; however, it has been reduced as reported in survey data presented by the Korea Employment Service Information. To enhance the productivity and to motivate its workforce to work hard, performance-based HRM policy on promotion and compensation gradually replaces the traditional seniority-based reward system. All these changes helped Korean companies in establishing individual incentive system so that productivity could be increased, particularly for the innovation-oriented industries.

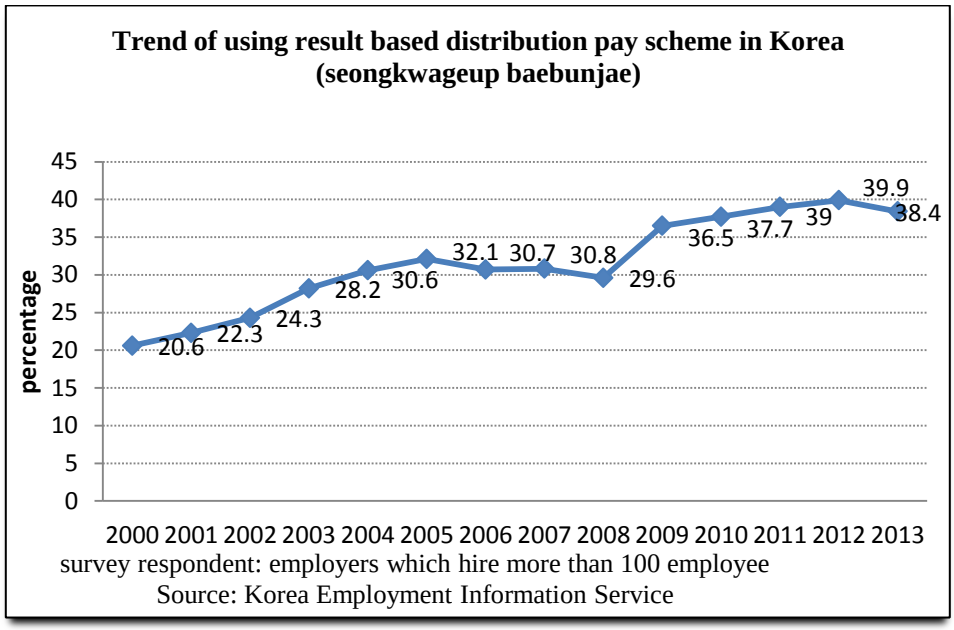
Figure 5.2 Trend of using annual salary scheme[15] in South Korea



Survey respondent: employers which hire more than 100 employees
Source: Korea Employment Information Service's Survey

[15] Annual salary scheme (yeonbongjae) is a system that evaluates 'individual's ability, performance and other job related factors and fixes one's full or partial salary (inclusive of basic salary, bonus, incentive, etc.) on an yearly basis

Figure 5.3 Trend of using result based distribution pay scheme[16] in Korea



Since the mid-1990s, Korean innovative firms and organizations have been reforming their reward system. One of the successful examples is Samsung Electronics. Samsung Electronics was established in 1969 as a manufacturer of low-end consumer electronics and has grown to become one of the top 100 global innovators today. According to the 2013 Thomson Reuters Derwent World Patents Index (DWPI), Samsung Electronics is the global leader in terms of patent volume in the semiconductors & electronic components sector. Samsung Electronics has 35,157 unique inventions between January 1 2010 and December

[16] Incentive distribution based salary (seongkwageup baebunjae) scheme is a system where incentive is distributed among the employees 'collectively' in a form of cash, stocks, welfare fund, etc. upon achieving/overtaking the business target set by the management or by saving production cost by the 'enterprise or department' level. (Incentive is not provided to 'individual' on the basis of performance evaluation)

31 2012 (Top 100 Global Innovator Report 2013). In 2005, the brand value of Samsung Electronics exceeded Sony and it is now twice the size of Sony, the undisputed leader in the sector 20 years ago. Due to its impressive performance and success, Samsung has become an important company of the Korean economy and an innovative company in the consumer electronics sector. One of the key factors for Samsung Electronics success is its management system. When Jong Yong Yun became Samsung Electronics CEO in 1996, Yun decided to break away from the traditional Korean management style (e.g. seniority-based and lifetime employment) and introduced merit-based reward system, implemented a monetary-system to reward its employees for making productive suggestions, and aimed for cultural diversity among the employees. For instance, SEC's business units recruited 800 PhDs and about 300 MBAs from western universities alone during the 1997 economic crisis (Schmitte, Probst and Tushman 2010). Cash-flow principles emphasizing profits over market share were introduced. A school was established to offer Samsung's employees the opportunity to study modern techniques in marketing and productivity, and large bonuses were to outstanding performers (Michell 2010). To attract the best brains to work in Samsung, Samsung Electronics offers the best pay to its executive staffs (average KRW80 million/year).

Similar reforms were introduced in Samsung SDI. Performance based reward system has been implemented since the mid-1990, in staffing, promotion and salary increment (Kim and Bae 2005). In addition to salary, a profit sharing reward system has been introduced since 1999. Profit sharing provided

employees with company-wide bonuses (Kim and Bae 2005). During the 1999–2001 period, individual employees received profit-sharing bonuses every year, and on average the amounts were about 20 per cent of a year's salary. Project incentives are also provided if a project generates profits of more than 200 million won (US$167,000) at the department level or 2 billion won (US$1,670,000) at the company level (Kim and Bae 2005). Under the project based incentive system, all participants in the project would receive monetary rewards based on their contributions to the project (Kim and Bae 2005). As a result, Samsung SDI became profitable again after 1998.

LG Electronics (LGE), another Korean manufacturer of consumer electronics, is also an outstanding innovator. According to the 2013 Thomson Reuters Top 100 Global Innovators report, LGE has 30,342 unique inventions between 1 January, 2010, and 31 December, 2012. LGE is also a three-time winner in the Thomson Reuters top 100 global innovator lists. Since its establishment in January 1958, LGE has been a forerunner in the electronics industry in Korea. It began producing radios for the first time in the 1950s and subsequently has been manufacturing various household electronic appliances. In 2008, a new global identity - 'stylish design and smart technology in products that fit consumer lives' - was introduced, and LGE has maintained a high level of innovation and research and development since then, making the company one of the most successful global electronics manufacturers in the world (Huang and Kim 2013). LGE replaced the traditional seniority-based HRM system with a merit-based HRM system in 1994. Under the new promotion system established

since the mid-1990s, junior employees with excellent potential were promoted to high managerial positions regardless of their seniority. Blue-collar workers could also be promoted to managerial and executive positions if they pass promotion examinations and has the required management talent (Kim and Bae 2005). These practices significantly reduce the psychological barrier between blue- and white-collar employees in LG Electronics. Various incentive programs have been used to reward performance and attract talented employees. To attract the best brains to work in the company, LG Electronics sets up a talent management team which is called "war for talent" strategy. Generous pay packages are rewarded to outperformed staff. To enhance work productivity, profit-sharing system was launched in 1999 (Kim and Bae 2005). For instance, merit bonuses of up to one year's salary were paid to high performers. Besides, competitive employees are provided with company stock to promote loyalty and productivity. In order to recruit promising talent from the external labour market, a signing bonus system was adopted (Kim and Bae 2005). The LGE's director of talent management states that:

> …For those gifted and ambitious individuals, conventional appraisal would not necessarily provide the best avenue to nurture and leverage their potentials ... In a company like LGE, we have to be fully aware that these individuals would not always be satisfy with the traditional grading and promotion. Rather, they know they are on a very different track for their careers (Huang and Kim 2013, p. 936)…

During the 1990-1999 periods, productivity increased on average by 20 per cent every year, sales and profits rose substantially particularly after the new HR management system was adopted. Today, LG Electronics is also one of best employers in terms of monetary incentives given to its employees.

Besides being innovative, Korean research institutions have also carried out management reforms to boost its competitiveness and productivity. KAIST, one of the best academic research institutions in Korea, is one of the leading training grounds for top scientists and engineers in Korea. Since its establishment by the South Korean government in 1971, giant industrialists such as Hyundai, Samsung and LG, have come to depend on the school for the steady stream of graduates. The school not only plays a significant role in producing quality human resource for the South Korean industries, the school innovates. According to a study by Thomson Reuters, KAIST was ranked among the top 100 global innovator in 2012 because of its high number of new inventions. The total number of international patents obtained by KAIST increased from 191 patents in 2002 to 331 patents in 2012 (KAIST website).

To ensure that the innovative capacity of workers does not decline, the performance-based pay system was introduced in KAIST. Academicians are generously rewarded to academicians who have produced quality research (Korea IT Times 31 October 2006). For instance, in 2014, six professors were rewarded cash prize ranging from 25 million to 50 million Korean won each for outstanding achievement (KAIST website 2014 Faculty Award List). In addition to generous rewards, faculty members are also required to meet annual

performance targets determined by the institute, publications in international SCI journals are given particular emphasis. Due recognitions are given to academicians in the form of performance incentives.

In KAIST, the merit-based system is applied to faculty members and to students as well. The new tuition fee policy was implemented beginning 2007. School fee is pegged to students' academic achievement to keep students on their toes. Students with GPAs less than 3.0 out of 4.3 pay partial school fees while those with GPAs of less than 2.0 must pay the full fee (Korea Herald 31 March 2013). Before the reform, tuition fee was waived fully for KAIST students. In addition, to ensure the flexibility of institute management, the university has an autonomous and flexible academic system. Unlike other South Korean colleges and universities, KAIST needs not follow government-directed admissions and curriculum requirements. It reduces rigidity and allows KAIST to act freely to achieve its academic targets. Undergraduate students can join the school through an "open major system" that allows students to take classes for three terms and choose a discipline that suits their aptitude. The autonomous status enjoyed by KAIST is significant in attracting talents and producing quality outputs in a short time. Values of organization harmony (hwa) is not strongly emphasized but is replaced by competition value. The reform indicates the shifts of oriental collectivism to western individualism. Suh Nam Pyo, the former KAIST president said that,

> …Students and professors of KAIST are at an international level of competitiveness, future graduates of KAIST must

> have the ability to work in a global economy, therefore they should be trained and exposed to the culture and customs of other nations so that they can operate globally in technical and managerial fields (Korea IT Times 31 October 2006)…

Overall, the institute has promoted a competitive environment to improve its status globally and to achieve the desired innovation. The new policy has been successful to enhance the innovation capacity of KAIST.

- *From lifetime to flexible layoff employment system*.

Besides the changes in reward systems in South Korean firms, the employment relations also encountered dramatic changes. Historically, large scale employment adjustment had been difficult in Korea before 1997. The lifetime employment system, which promotes loyalty and stability in the past, was challenged during the economic crisis. A total of 22,828 firms, the majority of them were small and medium enterprises, were declared bankrupt in 1998 (Chang and Chae 2004, p.428). Korean firms that were able to survive financially were forced to restructure their firms to become smaller. Thus, massive workers layoff was unavoidable and many Korean employees lost their job overnight. During the first half of 1998, about a million workers lost their jobs and the unemployment rate rose sharply to 8% in mid-1998 (Chang and Chae 2004). Korea's giant industrialists, such as Hyundai and Samsung, also encountered financial problems and got to restructure and its size rationalized. For instance, in spring 1998, approximately fifty middle-level managers at the Samsung SDI

Pusan plant took early retirement packages. The number of regular production workers at the Pusan plant decreased substantially and wage rates were cut by about 10 per cent (Kim and Bae 2005). Since then, employment relations in Korea changed tremendously where flexible layoff replaced the traditional lifetime employment system.

Under the reform policies of Kim Dae Jung's government, labor law was amended. The traditional rigid labor market was bound to change under the serious threat of nation financial crisis. Lifetime employment system was replaced by flexible lay off system or the so called market-based regulation. Through institutionalization, employers were allowed to manage their employees more flexibly for the purpose of cost efficiency. Since then, the number of irregular or contract-based workers increased sharply and permanent tenure is history. The rigid lifetime employment is problematical because it was costly and not cost efficient and it discourages productivity when employees assume that their tenure is secured forever. It is argued that flexibility in these areas improves competitiveness (Bae and Rowley 2004). The workplace labour relations have changed from authoritarian control to competition-based control. Flexible wage adjustment is one of the new changes. Korean firms have gradually been shifting to global standard with flexible employment system.

- *Efforts of separating ownership from management*

Another characteristic of Korean collectivism is that it is family-based. It has its influence on the Korean firms' ownership and management structure. Big Korean

business groups firms such as Hyundai, Samsung and LG are generally family-controlled concerns. Under the influence of Confucianism and oriental values, taking care of family welfare and interests is important. Korean entrepreneurs used to organize and manage their company based on the principle of governing the family. Business founders are expected to feed and provide for not only their immediate family members but other relatives as well (Song 1997, p.194). As a result, many Korean enterprises are staffed by the relatives and fellow clan members of the owners and operate under rules which often resemble those of the clan system (Song 1997, p.194). For instance, the LG Group is famous for its strong family control in the company's management. The Ku family who founded LG is a typical traditional family which places high responsibility on the eldest son. For example, Ku Cha Kyung - the eldest son of Ku In Hoe - succeeded his father as the LG Group chairman in 1970 and led LG Group until 1995. Ku Cha Kyung also followed his father's footsteps by passing down the power to his eldest son - Ku Bon Mu, who is the major shareholder in the LG Group. Hyundai Group, one of the biggest *chaebols* in Korea, is also controlled mainly by the founder's family members and power is the hands of the sons of the founder Chung Ju Yong. In recent years, the Hyundai Group has started to put forward their management succession plans to the third generation.

The absolute power held by the core family members in the company sometimes creates management inefficiencies. Often, the president of the company abuses his power for his own personal gain regardless of company's benefits. For instance, Chung Mong-Koo, the chairman of Hyundai-Kia Motor,

was alleged to have made illegal share transfers to his son to enable his family to maintain management control. He was also charged with embezzlement and breach of trust in April 2007. This malpractice by the group could be a heavy burden on the company and could impede the government's efforts in carrying out corporate reforms. Family disputes and fighting for control of the management of the company and shares has been another threats for Korean chaebols. For instance in 2012, Lee Kun Hee the former chairman of Samsung group faced lawsuits filed by his older brother and sister to wrest the control of Samsung management from Lee Kun Hee. Korean government has long realized the inherent problem of family-based businesses and initiated corporate reforms to separate ownership from management. To reduce the power of single shareholder in management, outside directors were introduced in 1998. Nonetheless, study by Cho and Kim (2007) showed that the impact of outside directors is not significant and larger shareholders continue to hold dominant power in management decision making.

Although the performance-based system and western management practices were introduced in Korean companies, the relationship based values is still deeply rooted in the Koreans' mind. Traditional Confucian philosophy of family and social relations cannot be eradicated easily from the Korean culture, even in this age of globalization today. For Koreans, the level of trust among family members is always strong compared to that of people outside the family. When more family members are recruited to hold core positions in a company, an inner circle is created and the circle gets bigger as time passes by. They hold the power

and have considerable influence on the rest of the organization. Outsiders often face difficulties and obstacles when they try to break the circle and have little chance of reaching the top. Change culture and value takes times. The shift to professional-based management is a necessity for the betterment of Korean corporations. The relationship-based values should be deemphasized for the sake of firms' sustainability. Table 5.4 below illustrates the changes in Korean organizational cultures and systems before and after 1997.

Table 5.4 Changes in Korea's organizational cultures and systems after 1997

Traditional values	Traditional systems		Rising of new values	New system
Harmony, group based, and respect to the old	Seniority based reward system	After 1997	Competition, individual	Performance-based reward system
Loyalty and stability	Life time employment	⇒	Freedom, competition	Flexible employment system
Family interest Authoritarian Relationship based	Mix of ownership and management. Founder family based		Transparency, democracy	Separation of ownership and management. Professional based

Korea's innovation-driven economy has been dominated by the big business group, or c*haebol*. Samsung group as one of the the most innovative companies in Korea contributed about 20% to of Korea GDP in 2012. The collectivistic

values which comprised of harmony, seniority, loyalty and relationship based, had helped Korean firms to grow in the initial stages. It lays the solid foundation but there is no guarantee that it would effective forever. The shift into a knowledge-based economy has forced the Korean firms to transform in order to be competitive. The global standards of management, which promotes the value of competition, merit and creativity is essential to sustain innovative firms. The old management style and values are no longer suitable for the highly competitive and fast changing business world. Fortunately, leading Korean technology firms such as Samsung Electronics and Hyundai Motors have gradually adopted the global standards, in line with the principles of competitiveness based and merit based system. The management reforms in the 1990s had definitely contributed to their innovation capacity today. Nonetheless, the issue of ownership and management remains critical. Further improvement is to be expected in this area.

5.4 Malaysian Collectivism, values and their Impacts on Competitiveness

Malaysia is a multi-ethnic collectivist culture. The largest ethnic group, the Malays, is a culture emphasizing harmony, courtesy (*adat*), cooperation (*gotong-royong*), and loyalty. Compared to modern day Korea, which is future oriented, Malay society values a more traditional way of life. Islamic ethical codes serve as source of guidance for behavior and social relationships. As a collectivist society

which emphasizes ones obligations as a Muslim and as Malay, human rights and the value of freedom is subordinated. Hofstede (1991) also described Malaysian culture as being relatively high in collectivism and very high in power distance. Abdullah (1996) supports this view, noting that Malay workers are group oriented, respect elders and hierarchy, emphasize loyalty and consensus, and are concerned with harmony in relationships. One of the best examples of this comes from the principles advocated by the National Principles (*Rukun Negara*). The *Rukun Negara* represents the ideology and core values of the Malay people, and stresses the importance of religion, royalty and obedience to law. Through the national school system, from elementary to high school, every student in Malaysia is required to recite the principles of in the *Rukun Negara* during a weekly school assembly. The content of the *Rukun Negara* is as follows:

Figure 5.4 National Principles of Malaysia

Rukun Negara

National Principles

We, her peoples, pledge our unite efforts to attain these ends guided by these principles:

Belief in God
Loyalty to King and Country
Upholding the Constitution
Rule of Law
Good Behavior and Morality

The National Principles (*Rukun Negara*) indicates that the religion of Islam takes precedence over all other concerns and is followed by loyalty to King. One of the main duties of the King is to protect the religion of Islam and rights of the Malay's in Malaysia. Loyalty to religion and one's own community is stressed in the society and Malay values are strongly influenced by Islamic teachings and ethical codes.

Similar to Korean values, Malays believe in the importance of unity and in establishing a moral relationship of trust for building long-term alliances (Abdullah 1996). Being cooperative (*kerjasama, gotong-royong*) is a collectivist value which is emphasized in Malay society (Kadir 2007). A common saying in Malay society is, "berat sama dipikul, ringan sama dijinjing," meaning to share burdens or difficulties together, and to enjoy happiness together. This ethos is paralleled by Korean cooperative spirit, which stresses collective happiness through working together. The spirit of *gotong-royong* (cooperative) is expressed perfectly in the community's festive activities and *kenduri* (i.e. parties). In a traditional Malay wedding ceremony, the relatives and friends of the bride and groom are expected to prepare food together for the wedding guests. Through interacting and working together their, relationships are strengthened.

In collectivist cultures, belonging to a group provide social security net to the individual. Abdullah (1996) states that, "having a sense of interdependence with others is important in enabling Malay to become a member of a social network," and in Malaysia, ethnic group identity is especially important. To be

loyal to the group (i.e. either ethnic group or team group in the workplace), the "we" must to dominate over the "I" as one's existence. Consequently, it is common in Malaysia for Malays to identify themselves as "Malay," and for Chinese to identify themselves as "Chinese;" ethnic group interests often taking precedence over national interests in political arena. Therefore, cultural and social activities in Malaysia are usually centered on ethnicity, and this extends to economic function as well, where the private business sector is dominated by ethnic Chinese, while the public sector is dominated by the ethnic Malays. This phenomenon is in stark contrast to the more ethnically homogenous Koreas society.

Unlike Korea, rather than driving economic performance, the Malaysian collectivist spirit seems to have become a barrier economic development. Malaysian collectivism is unlike Korean collectivism. Malaysia's collectivist spirit is based on racial affiliation. Despite the Malaysian government's efforts to adopt Korean positive collectivist values through the "Look East Policy," few gains have been made. As a multicultural nation, Malaysia is challenged to promote a strong cooperative culture in a society that is composed of various ethnic and cultural groups. Despite various efforts, Malaysia remains racially segregated society (Kahn 2006, p. 156).

The collectivist culture of Malaysia is associated with a large Power Distance. This aspect of the culture is similar to Korea. According to Hofstede's study (2001), Malaysia is among the top scoring countries for high Power Distance. This high Power Distance is related with the hierarchical structure of

society. In traditional Malay culture, Malays are taught to obey authority and respect to the old. This ethos rests on the *budi* (virtues) complex that outlines the ideals of behavior expected of Malay (Abdullah 1996). Under the influence of traditional teaching and Islam, Malays are traditionally very loyal to leaders. For example, in Malaysia's *Rukun Negara*, the second sentence instructs "Loyalty to King and Country". In Malay society, to question or challenge a leader is considered inappropriate and rude (Lim 2001). According to the provisions of the Sedition Act of 1948 and till in effect today, the consequences for criticizing the King can be serious. Due to the vertical top-down hierarchy, Malays tend to shy away from displaying assertive behavior or speaking out openly against elders or superiors (Abdullah 1996). Cooperation and group/community conformity are valued for sake of maintaining harmony; this cultural more is very obvious in Malay society, especially in rural and semi-rural villages. This hierarchical structure explains the nature of the power distance relationship in Malaysia. The effect of power distance was exemplified by Mahathir, former Prime Minister of Malaysia, who dominated subordinate and whose rule over the nation was absolute.

5.4.1 Race-based nationalism and its influences on Malaysia's development

Malaysia nationalism is associated with racial groups. As a multicultural society, ethnocentrism is both widely accepted and endorsed through the constitution and nation policy. The ethnic-based policy protecting "Bumiputra[17] special rights" is mentioned in the constitution of Malaysia. Ethnic Malays are given priority public service employment, public education opportunities, government projects, etc. For instance, Articles 89 and 153 state:

> …The Malays should be given extra transport and business licenses, extra educational privileges, prior right of employment in civil service and the armed forces, and also that Malay Reserve land should be made non-alienable to non-Malays, no quantitative targets or time-tables were set for the achievement of the objective of economic parity in the future (Faaland, Parkinson and Saniman 1990, p. 17)…

The clear distinction between "own ethnic group" and "other ethnic group" is very strong in Malaysia. From the design of national policies, to private sector employment patterns, and personal social networking, with the issue of ethnicity is pervasive. Compared to the more homogenous Korea culture, Malaysian heterogeneous culture presents a challenge for government. In order to ensure equality in income distribution, the Malaysian government has earmarked income

[17] Bumiputra (son of the soil) means Malay in Peninsula of Malaysia and native people in Sabah and Sarawak

equality as the top priority in national policy planning. Jesudason (1990) notes that for nearly two decades, Malay bureaucrats and politicians have measured the success of a policy in terms of achieving ethnic targets and quotas. Under the race-based political party system, the governing UMNO party's chief aim is to promote Malay interests and economic well-being. Former Prime Minister of Malaysia, Mahathir bin Mohamad, has been characterized as a strong nationalist Malay leader who had used his positional power to enhance the economic status of the Malay people. Khoo Boo Teik's "Paradoxes of Mahathirsm: An Intellectual Biography of Mahathir Mohamad," observes:

> …Mahathir as a young parliament member in the 1960s was a Malay nationalist who fought political battles against Chinese economic domination in Malaysia. Over the years, the scale and scope of his nationalism expanded (Khoo Boo Teik 1995)....

Race based nationalism has become a barrier for implementing performance based system in many sector, particular in government linked companies, public sector recruitment, university enrollment systems, government scholarships, and even in bidding for lucrative government projects. Whereas collectivist reward system in Korea was based on seniority and kinship prior to 1997; in Malaysia the collectivist reward system is based first and foremost on ethnicity, other issues being of secondary concern. This practice is officially endorsed by a number of governmental policies, for example, the New Economic Policy (1970 – 1990).

Implementation of New Economic Policy (NEP) commenced under Malaysia's second Prime Minister, Tun Abdul Razak Hussein, in 1971 and the basic principles of the NEP are still in effect today despite the NEP having officially expired in 1990. The objective of NEP was to solve the problem of racial economic imbalance and to promote greater social economic stability. It aimed to restructure the economy to eliminate poverty irrespective of race and end the association of economic functions with race. Prior to 1970, 60% of the country's economic wealth, as measured by share holdings in large corporations, was owned by foreigners, 30% was owned by ethnic Chinese, and the remaining 10% owned by the other races. With the implementation of NEP, the government aimed to increase share ownership by *bumiputra* (lit. "Sons of the soil" in reference to the ethnic Malays) to 30%, raise Chinese share ownership to 40%, and reduce foreign share ownership to 30%. To achieve this target, all initial public share offerings, or IPOs, were required to set aside a 30% share for *bumiputra* investors. Should *bumiputra* investors divest their shares, the company had to issue new shares to maintain the proportion of *bumiputra* shares above 30%.

When the Tun Razak government announced this policy, the Malay community welcomed it. Mahathir (2011, p. 242) commented:

> …I was happy with this affirmative action policy because I always felt that unless the extreme disparity in wealth between the Chinese and the Malays was corrected, tension

> and animosity would never be erased… For Malaysian to be stable, the economic gap had to be reduced…

Consequently, when Mahathir assumed power as Prime Minister in 1981, the Malays were given preferential treatment in public employment, education, scholarships, unit trusts, business, access to cheaper housing, and assisted savings through the Five Year Economic Plan. Although the NEP was only intended to be a temporary measure, expiring in 1990; the idea of affording *bumiputra* special economic privileges and concession was perpetuated into the Sixth, Seventh, Eighth, Ninth, and Tenth Malaysian Plans.

The NEP resulted in a sharp rise in the number of Malay business persons and the expansion of the Malay middle and upper class as compared to before 1970. Under the race-based national policy, the Malays are granted special rights for gaining employment in the public sector, as well as a reservation quota on employment in publically listed companies. As a result, Malays today comprise 80% of public civil service employees as well as in government-linked companies, such as CIMB, Maybank, Petronas, PLUS Expressways, Proton, and so on. Since the NEP, the proportion of non-*Bumiputra* employment in the public sector has declined dramatically In addition; Malay students are given better chance in entering national universities. Two types of university entrance exams are implemented and various national scholarships offered. Consequently, the enrollment of non-Malay students in national universities has dropped substantially. Also, to promote Malay business participation and property ownership, various government funds, projects, assistance, and training schemes

have been provided. As a result, *bumiputra* companies, which are often linked to various individual politicians, have come to dominate key economic sectors, heightening the concerns of Malaysia's other ethnic groups and foreign businesses about their own diminished prospects. To solve this problem, many non-Malay businesspeople have begun to actively court influential Malay politicians and senior bureaucrats to gain greater, if not equal, access (Gomez and Jomo 1999, p. 40). However, the participation of non-Malay capitalists in national industry projects plan is limited. Thus, with limited access to technology and capital, the grown of the non-Malay capitalist has been limited and most remain as SMEs. Presently, 97% of SMEs in Malaysia are owned by non-Malays, mostly Chinese.

While these efforts have substantially improved the economic status of the Malay community, business participation of the Malays in the private sectors and in non-government linked companies remains low. To highlight, 70.4% of CEOs in Malaysia are Chinese, while Malays comprise only 20% of the CEOs. While other ethnicities survive in the private sector, the Malays dominant the public sectors and government linked companies. Scholars and economists have noted that the special treatment given by government to the Malays has created a "subsidy mentality" among many *bumiputra*, having not given the opportunity to learn how to survive in the absence of government support.

5.4.2 Impacts on Malaysia's innovation-driven sectors

Several studies have demonstrated that Malaysia's race-based national policies are the main reason for the unsuccessful of technology-intensive industry projects (e.g Rasiah 2001; Jomo 2003). In government-linked projects, such as steelmaking and the manufacture of the national car, top management and employee recruitment is limited to ethnic Malay. Regardless of inexperience or limited technology absorptive ability, priority is afforded based purely on race. A meritocracy or performance-based system has not been adopted. Since major targeted technology- intensive industry of Malaysia government was automobile industry, case study of Proton was conducted to explore how the race-based collectivism has affected the company's performance. Other industries such as steel making, cement plant were also discussed in this section.

- *Case of Proton*

Proton automobile company, which was incorporated in 1983 was Malaysia's first national car company, and has been producing cars in Shah Alam since 1985. Proton is a subsidiary of the Heavy Industry Corporation of Malaysia (HICOM), which aims to improve the economic status of native Malays through industrialization. In an imitation of Korea's Hyundai automobile business model, Proton formed a joint-venture with Japan's Mitsubishi. With the support of the government, 70% of Proton's shares were owned by HICOM. To protect this infant industry, the Mahathir government raised the protectionist tariff by 300%, resulting in the retail price of Proton cars being much cheaper than imported cars.

To explain rather than subsidizing the cost of a Proton car and making more affordable for Malaysian consumers, the protectionist tariff only raised the costs of buying an imported vehicle. Consequently, purchasing a car in Malaysia is significantly more expensive than buying the same car in most other countries. For example, in 2013, the Hyundai Advante retailed at RM90, 000 (about US$30,000) in Malaysia, but in the U.S. the same make and model vehicle was being sold for less than US$20,000.

After nearly three decades, Proton is still considered as being an "infant" company by both its management and government backers, such that the government continues to afford the national car manufacturer an unparalleled level of protection. Rasiah (2001) observes that, as with most state-led ventures in Malaysia, Proton and its operations have been colored by national political concerns. The national car project is typically viewed as a product of Mahathirism, a project driven by the fervor nationalism in which Malaysia build its own car after witnessing the successes of Japan and Korea in the automotive industry. The national car project was initially conceived of by Mahathir, who initiated the project's feasibility study, when he was Trade Minister in late 1970s. Rasiah (2001) further observes that the establishment of the national car project was intended to create a platform for active participation of the Malays in a technology intensive industry, with an aim of improving the economic mobility of the Malays. Thus, a "Malay priority" policy was purposely adopted. From business partnerships, through to the whole production process, barriers were erected to limit the participation of other Malaysia ethnic groups in the nationalist

project. Before Proton and the national car project, the local automotive sector was dominated by ethnic Malaysian Chinese., So while there was a body of expertise already present in the country, Chinese capitalists who were already experienced in the automotive industry were bypassed for involvement in the national car project.

Jesudason (1990) noted that, "when the Malaysian government decided to build a national car, there were already eleven automobile assembly manufacturers in the country, mostly joint ventures between local Chinese car distributors and foreign principal". Jesudason (1990, p. 160) goes on the say, "there were good reasons for these companies to form the nucleus of the national car project. There was over-capacity in the industry, and these companies had accumulated considerable expertise and experience in basic car assembly. However, these existing companies were completely bypassed, and instead HICOM, which had been set up only in 1980, entered as a majority partner in a joint venture with Mitsubishi Motor Corporation of Japan". Jesudason (1990, p. 161) adds, "government officials often rationalize their policies by saying the state, in entering capital-intensive industries, is only doing what the Chinese will not do…Nonetheless, Chinese business spokesmen reject the idea that the Chinese are simply not interested in large-scale manufacturing projects." According to the Executive Secretary of the Federation of Malaysian Manufacturers (quoted Jesudason 1990):

> …The private sector will not go on its own into large-scale projects. But the government does not tell us what tariffs,

> subsidies, and prices it will allow for in any project. If they do that, we will make our own calculations and see if it's profitable. Many car assemblers would have been interested in the car project had the government announced the concessions it was willing to give. If the government keeps coming out with its own projects and doesn't tell us anything, how are we to get involved (161)...

Leutert and Sudhoff (1999) comment that while the ethnic-based policy may have contributed to political stability, it was economically problematic. Under the government's ethnic-based policy, more than 90% of Proton's employees at all level are Malay; although Malays only comprise 60% of the total population of Malaysia. A study by Jayasankaran showed that:

> …In 1988, the plant employed 1,300 people, 94% of whom were ethnic Malays. From 1983 – 1986, a total of 323 technical people were sent for training in Japan, of whom 90% were Malays, 6% Chinese, and 4% Indians. Most Proton personnel were inexperienced, while very few experienced workers laid off from other assembly firms-who were mainly non-Malays-were hired. The chief executive of Proton at the time, Wan Nik Ismail, was quoted as saying "if we wanted to employ such "veteran", we would have to get permission from the Prime Minister's Department (1993, p. 278)…

Proton's executive management had been restricted to Malays. Mahathir installed an almost exclusively Malay management team, while more experienced experts were excluded from the executive decision-making level purely on racial grounds. Similar ethnic profiles exist at the firm's five subsidiary and eight associated firms which are engaged in component manufacturing and car assembly (Rasiah 2001). In addition, joint venture operations in the Philippines and Vietnam rely on almost exclusively Malay management personnel (Rasiah 2001, p. 96). Similarly, components suppliers are also limited to largely inexperienced *bumiputra* firms. The resultant effect of this has been a relatively high rate of defects and poor consumer feedback (Rasiah 2001). Proton also suffered from a string of problems associated with mismanagement due to the recruitment and promotion of inexperienced managers. Jomo (2003, p. 86) observed that, "if experienced Malaysian managers of existing heavy industries - instead of civil servants - had been recruited as Proton managers, the management of Proton would probably have been more successful." Due to mismanagement resulting in recurrent annual losses the Malaysian government allowed Mitsubishi to control the company for several years in order to keep Proton afloat.

Government intervention and protectionism was aimed at preserving the industry's bumiputra management, but at the cost of production efficiency. Given the significance of ethnic politics in Proton's establishment and localization policies, the employment and economic development spinoff from Proton has strongly favored Bumiputras (Rasiah 2001). Rasiah (2001, p. 98) comments that,

"the consequent formation of a new business class can be viewed as a twofold process in which the Bumiputras have not only had to catch up with other ethnics industrialists, but also achieve competitiveness in the international arena". Jesudason (1990, p. 161) states:

> …One important conclusion from studies of late developers such as South Korea and Taiwan is that close collaboration between the society's corps of public administrators and entrepreneurs has been critical for their tremendous economic success. Malaysia's national leaders have not been unaware of the East Asian success and have even come up with their own slogans, such as "Look East" and "Malaysia Incorporated". Officials and politicians have appealed to those aspects of the model which stress the necessity for a strong work ethic rather than bringing up what the appropriate role of the state should be in facilitating development…

To transfer technology from foreign companies, Proton aligned itself with Japanese automobile firm Mitsubishi. However, the level of absorption of flexible modes of work organization has been superficial, as reported by Rasiah (2001). After decades of operation since 1985, Proton has not been able to demonstrate a coherent strategy for the application of lean production and collaborative work organization (Rasiah 2001). Due to the lack of skill and limited transfer of technology, Proton rarely produced an origin Malaysian-made car. Mitsubishi consultant, Hiroshi Satoh states that, "Proton took a short cut.

Instead of trying to start from scratch, we opted to use existing components and make modifications to the bodyline" (Jomo 2003, p.80). The Proton Saga, the first Proton car to roll off the assembly line, was essentially a four-door Mitsubishi Lancer Fiore, in 1,300cc and 1,500cc, with the cars being shipped to Malaysia in knocked-down kits and assembled locally (Jomo 2003). Ultimately, the partnership between Proton and Mitsubishi was a way for Mitsubishi to sell its own cars and components.

Until late 1990s, Proton's production capacity was limited to body and shell assembly, painting, and vehicle assembly. Research and development was generally limited to vehicle design and components development. The engine and gearbox continued to be imported from Mitsubishi. There has also been little participation by Proton in the development and customization of materials and parts supplied by foreign-owned firms, such as the air-conditioning, car stereo, antennae, metals, safety gadgets and so on. These sub-components of Proton cars are the responsibility of leading firms like Toyota, BMW, and Honda. Proton itself is still far behind on the technology frontier (Rasiah 2001).

To improve its management, Proton introduced a Japanese management style, Kaizen and Quality control circles (QCCs). It was hoped that these small QCC groups would contribute innovative ideas and solutions and ultimately improve production. Nonetheless, these Japanese models did not have the desired effect. Rasiah's (2001) research showed that Proton's managers lack a well-defined strategy to develop, or even implement, existing process technologies effectively. Even the Kaizen QCCs were themselves not implemented in an

effective manner. The lack of effective institutional coordination in Proton's launch and subsequent operations has been the prime obstacle to the effective adoption and development of technologies by the firm (Rasiah 2001).

At present, Proton is struggling to maintain its position in the domestic market and has suffered some staggering financial losses. In later 2005, Proton had to sell 60% of its share in debt-ridden Italian motorcycle company MV Augusta. These shares were bought in 2004 for 70 million Euros (US$84 million). But just one year later, when Proton was forced to offload these shares in 2005, they sold for just one Euro (US$1.2). As *The Economist* remarked, "Proton has always violated every principle of economics and car-making ….a firm born of nationalist ideals not commercial rationale, protected by old-style cronyism and never exposed to real competition. Like its creator, the best thing may be to let it go gently into retirement" (The Economist 6 May 2004). The "cronyism" described in the article continues among Proton's top management arrangement, where political linkage determines top executive appointments. For example, despite Mahathir's retirement 10 years ago and now aged in his late 80s, Proton appointed him as Chairman in May 2014 (Malaysia Insider 20 May 2014). Instead of appointing professional executive with experience in the automotive industry, the appointment of Mahathir as Proton's new chairman highlights the influence of political networking.

- *Case of Perwaja Steel and other industries*

Another of Mahathir's ambitious projects, Perwaja Steel, also attempts to mimic Korea's steelmaking project. But unlike the success of Korea's POSCO, Malaysia's Perwaja Steel represented a failure in the country's heavy industry plan. The Perwaja Steel project not only failed to meet its production targets and to transfer technology, but was marred by massive financial losses. From the beginning until the last, the Mahathir government tried to solve Perwaja Steel's management problems, but never succeeded. Unwilling to admit defeat, Mahathir said that the government was well aware of the difficulties of making handsome profits in the steel industry and was "prepared to lose money" (Furouka 2007). By 2000, the Perwaja Steel mill had suffered cumulative losses approximating 10 billion ringgit (US$2.7 billion); making it "Malaysia's most costly industrial failure and the biggest financial fiasco." Nippon Steel Corporation was charged with building a direct-reduction facility in the steel mill for Perwaja Steel. However, the direct-reduction plant did not function properly and was subsequently shut down. Nippon Steel eventually divested itself of its Perwaja Steel shares and abandoned the project. Even after major restructuring, Perwaja Steel suffered heavy liabilities (Furouka 2007). In addition, Perwaja Steel was found to be involved in a US$20 million corruption scandal. At the beginning of 2004, former Perwaja Managing Director, Eric Chia Eng Hock, was arrested by the Anti-Corruption Agency and charged with dishonestly authorizing Perwaja's payment of 76.4 million ringgit (US$20.1 million) to a Japanese company, NKK Corporation.

Mahathir's dream to modernize Malaysia with technology-intensive industries seems more and more like an impossible dream. In addition to car industry and steel making industry,, other heavy industries projects such as tin plate mill and cement plant also failed to become export oriented industry. In "Doctor in the House," Mahathir (2011) states:

> …I had been to Japan, Korea and European countries and seen the industries that they had there. The working and the running of modern industry were no mystery to me and I knew that if we truly wanted to, Malaysia too could industrialize. All that was needed was the willingness to learn and work hard. I identified the heavy industries that we should pursue: a steel mill to be built in Terengganu, a tin plate mill, a car factory and a cement plant in Langkawi…I did not think we would face too many problems establishing these industries…I overestimated the Malaysian capacity to learn how to operate a major industry… a lot of experience is needed in order to deal with any bugs and problems with the machinery (Mahathir 2011, p.329)…

The Heavy Industry plan was not successful. The cement industry was sold off in the late 1990s, the tin plate plant was also eventually sold off, and the steelmaking plant had become a nightmare project with heavy financial losses and corruption scandals. The national car was, and still is, still struggling to survive despite the protections being afforded to it by the government. In brief,

the government has shouldered massive financial losses due to the failure of the National Heavy Industry plan. Nonetheless, despite these many failures, Mahathir himself is satisfied with the state of heavy industries in Malaysia, saying, "things could have been better but we at least had engineering skills we did not have before…today the engineering industries have spawned a number of new products" (Mahathir 2011, p.334). Notwithstanding, the protectionism of Proton looks set to continue well into the future. In 2013, Mahathir stated that the national automotive industry must be protected with high taxes on imported cars in order to maintain the survival of the national car manufacturer (the Sun Daily 14 November 2013).

As discussed in the sections above, one of the chief problems inherent in the National Heavy Industry projects was the recruitment of inexperienced managers and unskilled workers. Under the NEP, Mahathir bypassed more experienced non-Bumiputra professionals to employ based almost entirely on the racial quality of being Malay. Many executive positions were filled from the public service. According to Mahathir:

> …In between developing these industries, I also had to make sure that Malays were participating at all levels. As far as possible, I wanted these industries to be run by Malay executives so that they could gain experience. They were usually drawn from our government officers, as the Government was usually the biggest, if not the only, shareholder of these ventures… many government officers

> retained their bureaucratic ways and unable to make quick decisions when needed (2011, p.333)…

In summary, a number of studies and scholars have observed that Malaysia's race-based policies have created inefficiencies and inequalities in the allocation of resources. Non-Malay ethnic groups in Malaysia, comprising 40% of the nation population, have not managed to develop brand names or climb up the technological ladder. And while the domestic economy grows, with much of that growth being driven by the efforts of minority ethnic groups, minority ethnic groups benefit little from government industry plans. Gomez (2008) argues that this growth might be driven by the lack of support from government, such support while well intended, invariably retarding the entrepreneurial impulse. Forced to fend for themselves, the minority ethnic groups in Malaysia have grown to safeguard Malaysian businesses and industries from foreign ownership and control. On the other hand, Malay-based companies which receive substantial governmental support have not able to catch up their Chinese counterparts and many of these 'supported' companies eventually shut down.

Wong (1990) argued that, the while the government may have used heavy industry and large enterprises to accelerate the advance of the Malays in modern commerce and industry, the predominantly Chinese-owned small and medium scale industries made little progress, and consequently missed opportunities to enter lucrative international markets because of the lack of political support. Rasiah (1999) also suggested that SMI support mechanisms have a lot of weaknesses due to their limited focus on supporting bumiputra/Malay-based

companies. The lack of bumiputra entrepreneurial experience has led to the poor management of government-linked firms despite continued support from the government via the SMI support program (Rasiah 1999). The rents offered by stated-sponsored anchor firms have not been tied to any time-bound performance standard, hence there has been little pressure to improve efficiency (Rasiah 1999). Jomo (1989) states:

> …The growing role of the state, especially since the NEP, has increased opportunities for various types of corruption. The phenomenon of money politics, for example, reflects the convergence of political and economic power, especially among the leadership of the major component parties of the ruling Barisan National (BN) coalition. It is now widely believed that most new opportunities for wealth accumulation are crucially determined by political access, rather than entrepreneurial ability (38)...

Economists have stressed the promotion of equality of opportunities as more important than the promotion of equality of results for pursuing efficient economic growth. Nevertheless, the Bumiputra-first ideology remains a part of current government policy. In 2013, the current Prime Minister Najib Abdullah announced the "Bumi Agenda" policy. Under the Bumi Agenda, over RM31billion (about US$10billion) in economic aid, loans, and programs would be made available to Bumiputra. The Bumi Agenda has the full support of government leaders. Deputy Prime Minister, Muhiyidin, said *that "*bumiputeras

need to boost their capability and be competitive in grabbing business opportunities through government programmes.*" (*New Straits Times 1 October 2013). Therefore, the growth of nationalism among Malay leaders has impacted upon the direct of public policy.

In short, this section identified how ethnic-based nationalism affected the development of the technology industry in Malaysia. Malaysia's collectivism is different from Korea's collectivism. As a multi-cultural society, Malaysia's collectivist spirit is limited to one's own ethnic group. This is in contrast to Korea, where Korea is one homogenous ethnic identity, one country. The collectivist spirit, inclusive of cooperation, team work, harmony, hierarchy, respect and loyalty are shared by both of these two cultures. But whereas the collectivist spirit worked very well in Korea during the early industrialization process, owing to Korea being a single-culture country; such gain were unattainable for multicultural Malaysia. In order to maintain harmonious relations between the various ethnic groups and to maintain dynamic economic growth, Malaysia has chosen an ethnic-based policy and it has been argued that this ethnic-based policy approach is what has undermined the growth of Malaysia's innovation competiveness.

5.5 Uncertainty Avoidance Culture of South Korea and Malaysia

Uncertainty refers to the possibility of unknown events happening in the future. Uncertainty includes risk, chaos, new inventions and new changes. Uncertainty is different from risk where risk is the possibility of something unpleasant happening, however, uncertainty includes unknown events, either positive or negative. According to Hofstede (2004), UA reflects the anxiety level of a culture in dealing with uncertainties. Uncertainty avoidance reflects the degree to which members of a culture feel threatened by unclear situation and how much they try to avoid them. Thus, high uncertainty avoidance culture normally expresses a stronger will to have control of own destiny rather than just accepting fate. In order to have better control, uncertainty avoidance culture applies more rules and is planning oriented. Low uncertainty avoidance culture is more comfortable with anxiety, expressing a higher level of tolerance towards uncertainty. They are relatively more flexible, relaxed, and less strict. In many cases, religion is one way to reduce anxiety and more at ease in accepting uncertainties. Overall, people in high Uncertainty Avoidance societies are socialized to follow rules, structured, hierarchical and keep everything in order. In a weak Uncertainty Avoidance culture, people are less strict and do not stick to rules and express a more relax attitudes towards changes. Moon and Choi's (2001) study indicated that discipline and frontierism are two elements emphasized in high UAI society,

such as preciseness, good public order, lower crime rate, entrepreneurship and less problem with corruption. Frontierism is an offensive way to avoid uncertainties while disciplinarism is a defensive way to avoid uncertainties (Moon and Choi 2001). Globe project of House et al. (2004) also found that the public sector in higher UAI society is relatively less corrupted due to the rules-oriented mind set. Study by Wennekers et al. (2007) showed that business ownership rates associated positively with the degree of Uncertainty Avoidance. According to Wennerkers (2007), uncertainty avoidance does not mean risk avoidance. It develops better entrepreneurship. Because the entrepreneurs' main function is by making judgmental decisions in the face of incalculable and uncertain business hazards (Knight 1921 cited Wennerkers et al. 2007). Therefore, entrepreneurs in high UA environment are more prepared in coping with uncertainties. Wennerkers et al. (2007) argued that high uncertainty avoidance countries push individuals striving for autonomy towards self-employment rather than be employed.

The degree of uncertainty avoidance of a society has a strong association with its past history and geographical environment. Inglehart and Welzel (2005) suggested that a values orientation of a society is affected by existential condition such as natural environment, socio economic level and historical experience. Experience in economic chaos, natural disaster, poverty and challenging climate teaches people that readiness to cope with these similar events is essential in future. For instance, to cope with natural threats, human develop new technology as a way of defense. To prevent economic chaos or any crisis in future, financial

regulation system needs to be tightened and enhanced; to cope with poverty, hard work and frugality are emphasized. Ability in dealing with uncertainties in life ensures better survival. Uncertainty is comprised of new changes, such as the emergence of new competitors, new products or changes of government policy. These are unpredictable events that may happen in the future. Thus, ability to deal with these changes should be developed, such as establishing a good system, law, investing in R&D, upgrading knowledge and skill and etc.

Korea is assumed to perform at a higher degree of Uncertainty Avoidance compared to Malaysia based on its living environment and the past experiences. As a country that has encountered various types of threats in the past, the Korean people have been taught to take threats more seriously, thus has a lower tolerance level towards uncertainties. Lyn and Hampson (1977) suggested that "…experience of wars and economic crisis lead to high degree of anxiety, which lead to higher degree of Uncertainty Avoidance." The GLOBE project by House et al. (2004) also indicated that temperate climate countries perform at a higher degree of Uncertainty Avoidance compared to tropical climate countries.

Malaysia, a country located in the hot and humid equatorial zone, is peaceful with rich natural resources and a relatively less painful historical past, and is assumed to have a lower degree of Uncertainty Avoidance. Fertile soils, tropical climate and rich in natural resources have made survival easier, creating an Uncertainty Acceptance culture in Malaysia. People take stress and threats relatively easier, and perform at a lower sense of crisis. The challenging climate in Korea, poor in natural resources, hostile neighboring country, experience of

wars and extreme poverty affect the people's worldview and value orientation. Threats are to be taken seriously; sense of crisis is higher, which have created the higher degree of Uncertainty Avoidance. People emphasize hardworking, strict rules, orderliness, and long term planning. It is hypothesized that the higher degree of Uncertainty Avoidance in Korea has helped it to progress faster economically compared to Malaysia, particularly in the field of technology development.

In this study, proxy values for measuring uncertainty avoidance index are value of thrift (indicate discipline and planning), determination and perseverance (long term or future orientation), independence (emphasize self-control and self-reliance rather than depends to others) and the importance of religion (religious belief help people to accept uncertainty). In an uncertainty avoidance culture, long term performance is highly emphasized which could be seen in their attitude towards saving money for the future, and how they value the importance of quality in independence and determination, which determines their capability in dealing with uncertainties and long term achievement. For a society which tends to accept uncertainty, a strong belief in unexplained power and religion is one way to deal with uncertainty. To believe in fate and put oneself to arrangement made by God helps a society to accept uncertainty more easily. However, for uncertainty avoidance culture, to be dependent on oneself is more effective in coping with uncertainty. High Uncertainty Avoidance culture places a higher value on efforts, for instance creating a new technology to cope with the limitations of nature, and work hard to enhance one's ability in dealing with

unknown events, establish a structured regulatory system to guard against any unpredicted shocks.

Based on the quantitative analysis's finding of this study, South Korea is categorized as a high Uncertainty Avoidance society with a score of 188 points (ranked 7th from among 57countries), while Malaysia is ranked as moderate with a score of 118 points (25th place from 57). Japan is ranked top and the scored highest in Uncertainty avoidance culture, followed by Germany, Vietnam, Taiwan, Slovenia and China. The countries with the lowest scores in uncertainty avoidance are Egypt, Peru, Jordan and Ghana which tend to accept uncertainties based on religious belief. The value data is obtained from the World Values Survey (2005-2009), based on the survey question asking respondent to choose the important quality that should have in their children. By just focusing on South Korea and Malaysia, the result of the values survey of each proxy values for uncertainty avoidance is as follows:

Table 5.5 Result of World Values Survey on questions related to thrift, determination, independence and religious faith

Values/ percentage of mentioning important in the aspect of _____ in child quality	South Korea	Malaysia
Thrift saving money and things (as uncertainty avoidance value)	73.1%	50.7%
Determination perseverance (as uncertainty avoidance value)	45.3%	33.3%
Independence (as uncertainty avoidance value)	68.3%	78.7%
Religious faith (as uncertainty acceptance value)	21.7%	59.6%

Source: World Values Survey Wave 5: 2005-2009

Based on the World Values Survey's result, South Koreans have a stronger emphasis on the value of thrift and determination while the Malaysians value religious faith and independence more with regard to their child quality. The overall result suggests that South Koreans hold stronger values of uncertainty avoidance. In other World Values Survey questions (2005-2009) related to uncertainty avoidance, the survey result is also consistent. For instance, on the question about "It is justifiable for someone accepting a bribe", 77.4% of Korean answered never justifiable but only 35.5% of Malaysian answered never justifiable. On the question of "Justifiable for avoiding a fare on public transport", 42.3% of Korean answered never justifiable and 22.9% of Malaysian mentioned never justifiable. In other words, even though accepting bribes and avoiding

paying for bus fare are violations of public rules, more Malaysians think that it is justifiable for doing so, but a majority of Korean are against violating rules for the reason of morality. This goes to show that Malaysians tend to be less strict on rules while the Koreans are more rules-oriented and less toleration on cheating.

Table 5.6 Uncertainty Avoidance degrees of South Korea and Malaysia

	South Korea	Malaysia
This study	Higher Uncertainty Avoidance (188)	Lower Uncertainty Avoidance (118)
Hofstede (2001)	Higher Uncertainty Avoidance (85)	Lower Uncertainty Avoidance (36)
Moon and Choi (2001)	Higher Uncertainty Avoidance	Lower Uncertainty Avoidance

According to Hofstede (2001), high uncertainty avoidance culture normally represents norms of higher stress, inner urge to be busy, loyalty to company, preference to work in large organizations, less tolerant to diversity and tends to be order-oriented and follow laws. These societal norms are matched with the characteristics of Korean society which are described as "hurry-up culture" (palli-palli) and stressful society. In comparison, Malaysia is often described as a diversity-oriented culture, slow, lenient, tolerance and lower work stress and the work environment is matched with low uncertainty avoidance. Malaysia as a country located in a region rich in natural resources with tropical climate, issues of survival have been much easier for the people. Therefore, it is not surprising to see the difference in expression of values compared to South Korea. Kwek (2011,

p. 211) suggested that "The Malay mindset has been characterized by a conservatism that encourages the sticking to old and tested ways; the avoidance of conflicts; a reluctance to deviate from community norms; and resulting in an inability to embrace change and creativity." The different degree of uncertainty avoidance between these two cultures is assumed to have significant impacts on their economic activities and competitiveness.

5.5.1 Uncertainty Avoidance, future orientation and R&D investment

In a traditionally high UA society, the focus is on long term rather than short-run result (House et al. 2004), hence future orientation values in high UA society. Hofstede (1980) suggested that individuals in high UA culture are more worried about the future, while individuals in low UA culture are better prepared to live by the day (p.176). In other words, high UAI is future-oriented and low UAI is more concerned about the present. Planning and saving is emphasized in Uncertainty Avoidance culture while Uncertainty Acceptance culture believes that future will take care of itself. House et al. (2004, p.606) mentioned that planning is an essential management tool to control uncertainty. Hofstede (1980, p.158) also stated that people playing a role in planning and control have a higher level of need to avoid uncertainty than others. To reduce uncertainty, certain form of services such as product warranties, insurance policies or investment plan is created (House et al. 2004, p.607). Ramirex and Tadesse's (2009) showed that firms in countries with high Uncertainty Avoidance hold more cash as a way

to hedge against uncertainties**.** GLOBE project also found that societies exhibiting a preference for high Uncertainty Avoidance have high cash holdings (House et al. 2004, p. 634).

The cultural traits of North Eastern Asian countries such as frugality and the high propensity to save are common among the Chinese, Japanese and Koreans. Among the ten countries with the largest foreign reserves, five are from Confucian countries, namely China, Japan, South Korea, Taiwan and Hong Kong. These countries are known for their long term oriented values, discipline and preciseness. A culture that is high on future orientation tends to be long term oriented and emphasizes financial planning. Individuals in this culture tend to counts more compared to low UAI culture. Readiness to deal with uncertainty in the future is emphasized. Individuals in high uncertainty avoidance culture think that the future is unpredictable, threatened by unknown situations, and saving is a way to manage financial risk and invest. Being thrifty requires strong will. Individuals in high UAI culture like Korea, children in Korea are taught to be thrifty but children in the Malay society learn more about tolerance and respect for other people. Malays are more present oriented while Koreans are more future-oriented. This is evident in the survey result of the World Values Survey global program.

Based on the World Values Survey wave 5: 2005-2009, 73.1% of Koreans mentioned thrift and saving money as important child quality against 51% of Malaysians mentioning the same thing. In a culture that has a higher level of anxiety, the Koreans tend to save more money for the future and emphasize the

importance of planning in their lives. Unlike Malaysians who tend to accept each day as it comes, Koreans are more concerned about the future. For instance, before Koreans decide to start a family and have children, they will consider the costs of education for their children, nursery cost, medical expenses and etc. However, Malaysians tend to profess a different attitude by believing that the future will take care of itself (Sarachek et al. 1984).

In society with low UAI culture like Malay, individuals believed that the future is too complex, vague, unpredictable and hostile; hence planning is difficult if not impossible. Whatever happen in the future is God's will, therefore human should take it easy, believing in God makes the Malay society easier to accept uncertainties. Therefore, it is not surprising to see the low birth rate among the Koreans and the high birth rate of Malays. In general, a typical Korean couple has two children but a typical Malay couple usually has three to five children. In the Malay society, having many children is not seen as a burden, but is seen as "blessing from God", children are seen as an "asset" and a kind of social security. The Malays believed that having a big family is a *rezeki* (earning) (Kadir 2007, p.30). Malays value their families more than anything else, let alone finance. Religious belief plays an important role in this regard. Even though having many children would be a financial strain that might affect the quality of care for the children, but the joy of having a big family overcomes the fear. Generally Malays are more tolerant of uncertainties and relatively more relaxed in facing anxiety. The differences in behavior are attributable to the different values and mind set, and religious belief.

Individuals in high Uncertainty Avoidance culture worry about the future, thus they save more and invest. Individuals in low Uncertainty Avoidance culture like in Malaysia tend to have an easy-come-easy-go attitude, and present-oriented. Jariah et al. (2004) conducted a survey on the financial behavior of Malaysian university students (sample size of 1500), indicated that more than 40% of the survey respondents mentioned that their spending habit creates problem and around 30% mentioned that they overspent. Spend thrift behavior among Malaysians is assumed to be strongly related to the degree of Uncertainty Avoidance. The difference between saving culture and spending culture has a significant impact on the economy. More savings meant more money for productive investment, contributing to availability of capital investment.

Table 5.7 Uncertainty Avoidance of Korea and Malaysia and investment

High Uncertainty Avoidance Culture (Korea)	Low Uncertainty Avoidance Culture (Malaysia)
Future orientation Higher anxiety level Mastery own fate, technology Disciplinism, rules, order, accuracy ⇩ More investment, planning, emphasize R&D	Past/Present orientation Lower anxiety, easy come easy go Belief on fate, adaptability, harmony More tolerance to uncertainties, less strict ⇩ Less investment, less R&D

Individuals in Uncertainty Avoidance culture seek to control their surrounding environment, while individuals in Uncertainty Acceptance culture seek to live in relative harmony with it. Mastery over the environment is an offensive way to defend against uncertainty, for example, human creates new technology to deal with uncertainties such as natural disasters and climate change. Hofstede (2001, p.146) stated that "…technology is a primary mechanism to defend ourselves against uncertainties caused by nature while rules helped to defend against uncertainties in the behavior of others." Individuals in high UAI culture take natural threats seriously and as a result, science and technology development is very much emphasized. Individuals in low UAI culture embrace

the concept of "some things are meant to be" and "easy come, easy go." They do not attempt to control nature, but rather "go with the flow", adapt and accept the surrounding environment (Moon and Choi 2001, p. 27). Individuals in low UAI culture tend to accept fate and rely on religion to deal with uncertainties.

As shown in the previous chapter, this study found that uncertainty avoidance has a strong and positive relationship with R&D expenditure, and most technology-driven economies are high in uncertainty avoidance. As a country high in UAI culture, Korea has invested a lot in research and development compared to Malaysia. Other high UAI cultures such as Japan, Germany and Switzerland also spend a lot of money in the research and development. Obviously the uncertainty avoidance values have affected policy making and strategies. This is shown in the World Values Survey result. Most Koreans think that technology development is very important, but Malaysians do not think so. For instance, based on the World Values Survey (2005-2009), 72.8% of Koreans thought that "More emphasized on technology in future changes" as a good thing while only 55.70% of Malaysian thought so. As to fate versus control, more Koreans thought that people shape their own fate and it is important for an individual to be adventurous and take risks (see Table 5.8). However, in a society where religious belief is very strong such as in Malay society, people believed that God shapes their fate and human do not have absolute control of their own destiny. Basically, Malays tend to believe that Man must live in harmony with nature. Abdullah (1996, p.19) stated that "Under the harmony concept, Malays

have to adapt and "take" whatever comes which induces an attitude of humility, non-confrontation, adaptability and even submission that makes life in the community easy and smooth." Being aggressive and adventurous in controlling nature is not a characteristic of Malay people. Instead, being gentle and accept things as they are seen as a harmonious way to protect Man itself. To live in harmony with nature is emphasized in the Malay culture.

Table 5.8 Uncertainty Avoidances' sub values of Korean and Malaysian (technology, fate and adventurous level)

		Korea (2005)	Malaysia (2006)
Future Changes: More emphasized on Tech	Answered Good thing	72.80%	55.70%
	Don´t mind	21.10%	41.70%
Fate vs control	People shape their fate themselves (tick highest scale 10)	14.5%	8.10%
It is important to this person adventure and taking risks	Very much like me	8.30%	5.50%
	Like me	17.50%	14.20%
	Somewhat like me	26.10%	23.00%
	Total	**51.9**	**42.7**

Source: World Values Survey Wave 5: 2005-2009

The World Values Survey's result shows that in general, the Koreans have more concern for technology development, more determined to master their own fate and more adventurous. Religious belief is not that important for many Koreans. These characteristics matched the high UAI culture and capitalist

character. Although Korea was a traditional agricultural society for more than five thousand years, Korean's belief and values had transformed with the introduction of capitalist ideals and the implementation of industrialization. Under the leadership of Park Chung Hee since 1961, a series of economic and cultural reformations was introduced.. Park Chung Hee believed that to modernize Korea, one has to begin with cultural changes and the promotion of industrialist spirit. Park Chung Hee (1979) stated that,

> …Western man, trying as always to discover the inner laws at work in nature as well as in human society, has seldom taken nature for granted. It was his philosophy to try to find ways to control nature. I believe that it was this spirit of science and pioneering that led to the foundation of Europe and the United States… there were the spirits that moved the West…Its rationalism and pragmatism are the strengths of the Western philosophy that we should absorb… however Korea's culture and traditions should choose only the strength and merits from the western cultures (Park Chung Hee 1979, p.32)...

Park Chung Hee (1979) stressed the creation of a progressive and future oriented culture, and this has certainly affected the formulation of the nation's development policy, the decision to develop technology intensive industries in Korea in particular. As a country facing various types of external threats, Korean leaders were concerned with the loss of competitiveness in the manufacturing of

light industrial products, the rise in protectionism, the gradual withdrawal of US troops stationed in Korea, and the attendant national security problems (Sakong 1991, p.50). The growing external threats had contributed to the initiation of the industry-specific and firm-specific HCI promotion drive in the early 1970s (Sakong 1991, p.50) To protect oneself against environmental uncertainties and external shocks, Park Chung Hee believed that Korea had no way out except to develope technology-intensive industries. Korea, as a country poor in natural resources and the constraints of inherited disadvantages, it has to depend on human capital to create its own advantage. Park Chung Hee's economic advisor at that time shared the same view and persuaded Park to reform the industries. For instance, in a briefing by Park's economy aide, O Won Chol, in 1973:

> …We have to reform our industrial structure, and expand the industry. It is essential that we nurture chemical factories, ship building and mechanical engineering companies, set up large-scale industrial complexes and introduce the latest technology… We can outpace North Korea by developing the heavy chemical engineering and armaments industry simultaneously (Choson Ilbo 1 September 2008)…

Agreed with what O Won Chol had suggested and based on its heavy industry plan, the Korean government embarked upon a program of technology-intensive industries such as shipbuilding, electronics, mechanical engineering, steel making, automobile, petrochemical engineering and nuclear power. The

Heavy and Petrochemical Industry policy was a success and the remarkable transformation of the economy enabled Korea to achieve the status of a newly industrialized country (NIC) in 1970 (Harvie and Lee 2003). Korea continued with its rapid growth during the 1970s despite the two oil crises, and by the late 1970s, it had even overtaken Malaysia in terms of per capita income. Within a single generation, the Koreans became the world's largest producer of handsets and home appliances, the second largest shipbuilder, the fifth largest car maker and the eleventh largest economy. Korea has successfully become an innovation-driven economy and very much dependent on the technology intensive sectors. The statistical tests in the previous section show that Uncertainty Avoidance has a positive relationship with innovation. The efforts of the Korean government in developing science and technology have been fruitful, particularly the investment in research and development. The future-oriented attitude of Korean leaders and policy makers was a significant factor in charting the direction of developmental planning. Currently, South Korea came in second among OECD countries in terms of R&D spending to gross domestic product. The Korean private sector is the major contributor in terms of R&D spending which stood at 3.09 per cent to GDP (Korea Herald 24 Oct 2013).

Malaysia, which is located in tropical climate zone, rich in natural resources, in a stable and peaceful region, is relatively more tolerant to uncertainty as evidenced by the descriptive statistics presented. Survival is easy and thanks to the fertile soil, comfortable climate and almost free of natural disaster. Mahathir (2011) stated that:

> …In the past, most Malays lived along the rivers where there was plenty of fish and other food. Life held no great challenge. If life is easy, you have no reason to try too hard to improve (Mahathir 2011)...

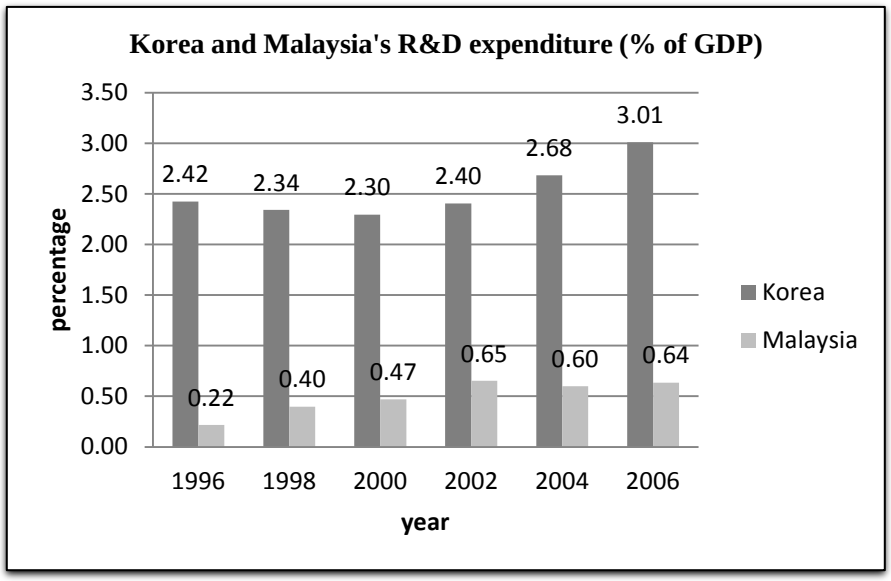
The dependence on the primary commodity sector is due to the comparative advantage Malaysia has in terms of natural resources. Before industrialization, Malaysia was not rich and starvation has never happened in the country. People were able to survive with the fertile soil and plentiful food supply as endowed by nature. Prior to the 1980s, the main exports of Malaysia were rubber, tin, palm oil, hardwood timber, and petroleum. In the 1960s, rubber accounted for two-thirds and tin for one-fifth of the total exports of the country (Cheng 2003). Manufacturing industry and the development of technology was not the priority then. In the mid-1980s, the primary commodity sector accounted for about one-third of the total output and contributed to about one-fifth of the growth of the economy during the period. The main engine of growth came from the mining and agriculture sector.

The prosperity in the commodity market was not sustainable. In the early 1980s, commodity crisis hit the Malaysian economy badly. In 1985, the market price for all Malaysia's main exports - petroleum, palm oil, rubber, tin and cocoa - collapsed, prompting a deep recession that lasted into 1987. After the crisis of the mid-1980s, UAI was slightly up with the improvement of rules and policy, as well as promotion of technology development. Policy has essentially shifted from an inward-looking, domestic-oriented strategy to one that was outward-looking.

FDI was promoted by the government and Mahathir's Look East Policy began in 1982. As a result, foreign investment increased steadily since early 1990s, which leads to the growth of in the manufacturing industry. Under the Look East Policy, the Malaysian government promoted heavy and petrochemical industries as what the South Korean government did in 1970s. As discussed in the section above, the heavy and petrochemical industries were less successful compared to that in South Korea. The lack of cultural support such as a disciplined and hardworking labor force was one major factor.

The World Values Survey result is consistent with the hard data obtained from the World Bank, which reflects the consistency of value with real behavior. As shown in Figure 5.5, the data show that R&D expenditure to GDP ratio of Korea is much higher than that of Malaysia's. Korea continues to invest heavily in R&D. The ratio increased from 2.42 per cent in 1996 to 3.01 per cent in 2006. Large conglomerates in Korea contributed to the major portion of Korea R&D expenditure, Samsung, Hyundai and LG in particular. Electronic chemicals and machinery industries are the major focus of the R&D activities. Compared to Malaysia, Korea also performs much better in terms of ratio of technician, expenditure and publication in journals. The Malaysian economy has been dependent on FDI, agriculture and natural resources (oil and gas, forestry). As a consequence, technology development has been much slower.

Figure 5.5 Comparison of R&D's expenditure between Korea and Malaysia, 1996-2007



Source: World Development Indicator

As shown in Figure 5.5, the R&D expenditure to GDP in Malaysia was less than one per cent for many years. Although the figure has been improved, however the growth rate has been very low. In comparison with Korea, private industry participation in R&D in Malaysia has been low. For instance, in the early 1980s, the private sector contributed only 10 per cent to total national R&D expenditure (Nesadurai 1994). As a production-based economy, Malaysia's private sector consisted of mainly SMEs and their involvement in R&D is limited. R&D activities have been the domain of public universities and government funded research related institutions. However, private companies rarely benefit

from national technology policy. Nonetheless, the Malaysian government has been the main contributor to R&D, the economic impact of public sector R&D has been limited. For instance, a government survey of 5,232 research projects carried out during the 1990s in public research institutes and universities found that only 5.1 per cent had been commercialized (Felker and Jomo 2007, p.132). In addition, the total number of patent applications from Malaysia also indicates that the involvement of Malaysian citizen in R&D is extremely low. For example, in 1999, Malaysian residents accounted for only 3 per cent of all patent application filed in Malaysia (Felker and Jomo 2007, p. 132). This demonstrated that non-residents are the major contributors of new inventions registered in Malaysia and the development of technology by locals has been particularly weak.

In comparison, the Korean government and private sector take a keen interest and pride in R&D. Since the 1970s, under the leadership of Park Chung Hee, the Korean government has cooperated with the private sector closely in the development of new technology, particularly in R&D. Korean R&D promotion policy was initiated in 1972 under the Technology Development Promotion Law. To promote private R&D, the R&D promotion policy was amended in 1981. Since then, Korea's R&D expenditure to GDP increased significantly and attained a level similar to that of the Western countries in the 1990s, including Germany and France (Sakakibara and Cho 2000, p.11). Various measures were taken to promote R&D including tax deductions on R&D expenditure, tax deduction on import technology use, and low interest loan for R&D,

establishment of national research institutes and etc. As a result of these measures, participation and cooperation among Korean firms to conduct R&D increased, and driven by large Korean conglomerates. For instance, the contribution of private firms to Korean R&D expenditure was about 80 per cent in 1990 (Sakakibara and Cho 2000). Samsung, Hyundai, POSCO and LG have invested heavily in research and development.

Besides carrying out their own R&D at firm level, Korean private firms also worked together with academic institutes, for instance, in POSCO, to meet the needs of self-developed technology to be independent technologically. POSTECH and RIST (Research Institute of Industrial Science and Technology) were established by POSCO (POSCO 2013). Founder of POSCO, Park Tae Joon, recognized the importance of R&D and established the Pohang University of Science and Technology (POSTECH) in 1986, and the Research Institute of Industrial Science & Technology (RIST) in 1987, thus establishing the three-axis system of industry-academia-research through POSCO-POSTECH-RIST. In the past four decades, POSCO acquired numerous patents and enjoyed the fruits of its R&D investments. For example, to keep the cost low and produce top-rated products, POSCO developed a new process called FINEX. This new technology allowed POSCO to reduce its production cost substantially. In collaboration with the Pohang University of Science and Technology, POSCO made significant contributions to innovation in Korea. In 2012, Pohang University of Science and Technology was ranked in the Thomson Reuters 2012 Top 100 Global Innovators

list attributable to its number of new inventions. The Korean government has played a significant role in supporting the R&D of academician institutes.

Korea's top multinational company - Samsung Electronics - invested heavily in R&D throughout the 1980s and 1990s, despite the severity of the industry cycle shows how differently Samsung Electronics' leadership perceived the industry potential (Lee and Slater 2007). Samsung Electronics continued with its huge investments in the technology, which finally paid off when the industry rebounded in 1999. The commitment to DRAM investment is a characteristic of entrepreneurial behavior: to seek rents that can be won in a high risk venture (Lee and Slater 2007). Even though facing significant uncertainty about the future state of the DRAM industry in the mid-1990s, Samsung Electronics decided to take its own path to develop the next-stage DRAM chips, resulting in global leadership. Samsung's R&D team, comprised mainly of Korean-Americans with Ph.D in electronic engineering, succeeded in developing 64 K DRAM and helped Samsung to be the leader in the DRAM industry in 1992, and Samsung has maintained the leadership position since then (Siegel and Chang 2005). Samsung's persistent effort in the development of the DRAM technology and pooling its resources to crack its own technology is in line with the strategic decisions taken to meet the challenges posed by the other firms in Asia (Lee and Slater 2007, p. 251). Over the years, Samsung Electronics had invested more than 20 percent of its net income in R&D, which is the highest R&D among the major semiconductor competitors. This company policy, specifically geared to expand and support R&D, is one of the resources and capabilities that have enabled

Samsung Electronics to reach the top-tier of technological leadership in the semiconductor industry (Lee and Slater 2007).

The high R&D investment of Samsung Electronics is associated with the high uncertainty avoidance attitude of its leader. Yun Jong Yong, the former CEO of Samsung, played a significantly role in taking Samsung Electronics to a new level was famous as the "chaos-maker", as he tried to encourage a sense of crisis to drive change. Yun Jong Yong stated that, "We instilled in management a sense that we could go bankrupt any day". For Yun, getting ready to cope with changes in technology in future industry is crucial; therefore investment in research is a must. When he was interviewed by the New York Time in 2005, he said that Samsung was getting ready for digital convergence, where lines are blurred between televisions and computers, where cellphones are also cameras and digital music players. "I can tell you that the day is coming, and we are preparing…" Yun said (New York Times 9 July 2005). In 2005 alone, Samsung made $10 billion in capital investments (New York Times 9 July 2005). Yun's famous quote is "…you must constantly change and adapt to a new environment". Although financial resources were urgently needed to support SEC, Yun decided to take a different approach and continued to invest in R&D (Schmitt, Probst and Tushman 2010). Yun realized that suspending any investments in the DRAM technology could result in the company permanently losing the company's position as the leader in DRAM technology. He knew that their competitors in the memory chip market were withholding investment due to the poor economic condition. This passivity offered an opportunity to further develop Samsung

Electronics' long-term technological strengths in the semiconductor business. For instance, Samsung invested $100 million in the manufacture and assembly of, and test sites for, its next 72-Mbit DRAM chips (Weld 1999). These investments enabled process innovation and sustainable cost reductions. With so many uncertainties in the market, Yun also believed that Samsung Electronics needed to decrease its overall reliance on the semiconductor business (in 1995, memory chips accounted for about 90% of the company's profits and almost half of its sales). With further investments in new business segments, Yun aimed at balancing the company's future business activities (Schmitt, Probst and Tushman 2010). Yun has proven that he was right with the substantial rise in Samsung's sales and profit afterwards.

McGrath (1997) believed that R&D investment enabled firms to change their product attributes more rapidly than competitors. Bowman and Hurry (1993) also mentioned that firms with flexible capabilities have the advantage of outperforming competitors under situations of environmental change. The case of Samsung Electronics revealed how a firm's flexibility to concurrently explore and exploit was a key aspect in its successful response to the emerging market threats and the opportunities that the Asian crisis presented (Schmitt, Probst and Tushman 2010). Yun's uncertainty avoidance attitudes had certainly played a significant role in enhancing the Samsung competitiveness. Samsung group chairman, Lee Kun Hee, also demonstrated similar values and attitudes. Lee stressed the importance of coping with rapid changes by making one prepared for the changes. Even though Samsung Electronics has made substantial profits in

recent years, Lee Kun Hee (2014) urged Samsung employees to be ready for new changes by mentioning that;

> …We stepped up our investment and focused on technological development to further sharpen our competitive edge and come up with better business result…we have to renovate ourselves again, because the business models and strategies, hardware processes and corporate culture of five and 10 years ago do not work any longer. Let's get rid of old-fashioned ways of thinking, systems, and practices. We need to break technological and market limitations in order to take the initiative amid prevalent uncertainties… we need to create new technologies and new markets with a long term view oriented toward industrial and technological convergence (Lee Kun Hee cited Business Korea 3 January 2014)...

With uncertainty avoidance attitudes, Korean entrepreneurs strongly believed that by constantly adapting to changes is significant. Readiness and well preparedness for any new technology shift in the future is crucial for firms to maintain sustainability. Therefore, it is not surprising to see the continuity of heavy investments in R&D by Korean firms as a way to be prepared for uncertainties. These have shown that the values and visions of a leader, either at

national or firm's level, have strong influence on the direction of technology development.

In addition to R&D, the Korean government also promoted the development of human capital to support high tech growth, work force trained in science and engineering in particular from technical colleges and higher institutions of learning. The 1995 Human Development Report (1995, p.174) showed that enrolment in technical streams at the secondary level for the period 1988-1991, 18.6 per cent of its secondary students were enrolled in technical training while Malaysia had only 2.2 per cent (Goh 1999). Although the Malaysian government's targeted ratio of 60/40 with 60% of high school students in the science stream; however, the enrolment of students in the science stream in Malaysia has been very low for many years (27.7 per cent for the year 2000) (Malaysia Education Development Plan 2001-2010). The majority of Malaysian students are not interested in the sciences due to its difficulty level, which involved a lot of mathematics where most of Malaysian tends to avoid. To increase the enrolment of students in science and technology, the Malaysian government planned and built many residential, technical/vocational schools, expanded the provision of technical and vocational education in normal schools. Nonetheless, the result is unsatisfactory. As a country with a low UAI culture, Malaysians prefer less stressful lives, accepting challenges is something not called for. As a result, science-based subjects are not a popular choice among students. For instance, in the 1990s, only about 20 per cent of the total number of secondary school population was enrolled to study science-based subjects. Of the

total number of university students, majority of the students majored in the arts and social sciences, with less than 30% majoring in science and engineering (Sixth Malaysia Plan 1991). Goh (1999) commented that with this current trend, Malaysia will continue to face difficulties in climbing the technology ladder. It affects the technology absorptive ability of Malaysia human resources base. With the small number of qualified technicians and engineers, it explains why technology transfers from foreign companies have been very limited so far. Foreign companies and foreign joint ventures often find difficulties in getting the skilled engineers and technicians required, particularly students who graduated from local public universities. Table 5.9 below shows the number of technicians in R&D and publications in science-based journals by academicians in Korea and Malaysia. Compared to Korea, Malaysia shows a lack of human capital to support technology growth.

Table 5.9 Number of technicians in R&D and publications in science-based journals

Technicians in R&D (per million people)	1996	1998	2000	2002	2004	2006	2007
Korea, Rep.	635	534	457	499	585	587	720
Malaysia	31	43	40	57	63	44	
Scientific and technical journal articles	1996	1998	2000	2002	2004	2006	2007
Korea, Rep.	4,771	7,057	9,572	11,735	15,255	17,910	18,467
Malaysia	362	387	460	495	586	724	808

Source: Word Development Indicator

In Korea, to meet the growing demand for labor in the technology-intensive industry, the government implemented various incentives to induce the students to enroll in science and technical education. Since the Park Chung Hee government began the Heavy and Petrochemical Industries Plan, the government established mechanist high schools to train precision-machinery workers. In 1976, the government designated eleven technical high schools in which some 2,000 skilled technicians were produced annually. The government also establishes specialized technical high schools in order to meet the demand of electronics, chemical and construction technicians and engineers. Technical education emphasizes a match between technical training and specific manpower needs in heavy and chemical industries (Shin 2003, p.103). With the enactment of the

Special Law for Vocational Training in 1974, a mandatory training scheme for enterprises with 500 or more employees was introduced. Under the law, firms are required to provide six-month in-plant training for the skilled workers of 1987(Shin 2003, p.103). Overall, the efforts of the Korean government in promoting science- and technology-based manpower have been successful; as shown in Table 5.9.

5.5.2 Determination, hard work, and education performance

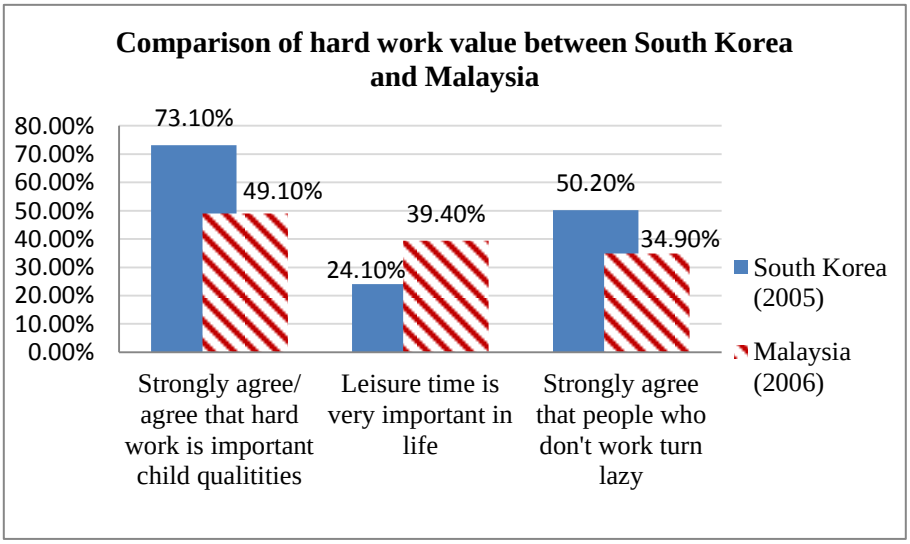
An inner urge to work hard and be busy is a UAI societal norm, and hard work is not a virtue *per se* in a low UAI society (Hofstede 2001). Due to the higher anxiety levels in uncertainty avoidance culture, working hard to perform is one way to cope with stress. Time is money for a high UAI culture, leading to a hurried social life and higher energy release, meaning an inner urge to be busy (Hofstede 2001, p.159). The satisfaction degree towards lives tends to be lower and people generally are afraid of failure. To cope with stress, high UAI people seek clarity, performance, structure and accuracy, while a low UAI society is comfortable with chaos and vagueness. Thus, Moon and Choi (2001) have suggested that a high UAI society tends to be more disciplined and orderly. Moon and Choi (2001) also stated that high UAI societies are not only diligent and disciplined, but at the very frontier of success. This is a way to cope with the stress of being a failure or facing uncertainties. In Korea, a country known as a stressful and hurried society, the traits of social culture are matched with

uncertainty avoidance characteristics. Work is central in Korean life and to be busy with work is a virtue *per se*. In Malaysia, a country which tolerates more ambiguity, work is not central to life and they see the beauty of slowness, therefore enjoying a more relaxing life style.

Inglehart's World Values Survey (2005-2009) revealed that Korean people are more emphasize value of hard work compared to Malaysian in general. World Value Survey (2005-2009) findings reveal that 73.10% of Korean agreed that "Work Hard" is an important child quality, while only 49.1% of Malaysian agreed. More Koreans think that people who do not work become lazy, while more Malaysians think that leisure time is very important in life (see Figure 5.6). Therefore, it is not surprised to see that Korean people are very much hard working and committed to work. Various studies have shown that the success of South Korea may in part be due to the industriousness, ability, and commitment of Korean workers (Kim 1994; Kim and Park 2003). In Malaysia, a hard-work ethic is not implanted to the same degree as among the Koreans. In Malay society, success is definitely not equated with hard work, although a more subtle form of diligence is discernible in the nurturing of deep relations with colleagues and family is highly prized (Lewis 1996). Enjoying time with family is a central part of life and is seen as more important than work. Spending long hours at work and coming home late is not a virtue *per se* in Malaysian society, but is respectable in Korean society. The former Prime Minister of Malaysia, Dr Mahathir, wrote in his book "New Malay Dilemma" that working hard and taking risks is not a part of Malay culture. Thus, it is not surprising to see that the WEF competitiveness

report (2009) identified Malaysian's poor work ethic as a problematic issue from an economic perspective.

Figure 5.6 Comparison of hard work value between South Korean and Malaysian



Source: Figure constructed based on the World Values Survey Wave 5: 2005-2009.

The hard work value of Korean and Malaysian are consistent with real working hours. Based on data from the International Labor Organization, Korean working time is longer than Malaysian. For example, the annual number of hours actually worked per person in 1994 for Malaysia was 2244 hours, while for Korea it was 2651 hours. Currently, Korea is ranked as the world's hardest working nation, according to OECD's research. There are many examples showing the hard work culture of Korean people. The following example quotes

a Forbes news article from 21 May 2008, describing how typical Korean office staff works every day:

> ...Mr Lee, a civil servant at the ministry of agriculture and fisheries, gets up at 5.30 am every day, get prepared to work, reach office by 8.30am and usually leave office at 9.pm or even later… This happens six day a week, and throughout almost all of the year, as Lee gets just three days of vacation. To explain why Lee work overtime, Lee told that: "It is the culture, we always watch the senior boss thinks of our behavior. So it is difficult to finish at a fixed time. Leaving at the official time of 6p.m could mean not getting a promotion or raise paid. If I took a month's vacation, my desk would surely be gone when I got back (Forbes 2008)…

In Malaysia, the work culture is different. Malaysians value rest more than work. For Malaysian government servants, daily work hours are fixed at 9 hours, either from 8am to 5pm, or 8.30 am to 5.30pm, and workers usually return home on time. For the private sector, annual leave is around 12-20 days, but for government servants it is up to 30 days, in addition to public holidays. As shown in the World Values Survey, 40 percent of Malaysians think that leisure time is very important in life. This has contributed to a more relaxing work culture of Malaysia. To be busy is not a virtue *per se* in the Malaysian society. This may attributed to the traditional culture, or because of rich natural resources, fertile soil, or the tropical climate. Historically, Malaysia has never experienced any

starvation or extreme poverty. Survival is relatively much easier than Korea. As pointed out by Mahathir (1970) in the book of "Malay dilemma", the Malay race evolved in an environment of tropical plenty, where hard work and an entrepreneurial spirit were not needed to earn a basic living. Malay farmers need to work only two months a year to grow enough food to survive. Mahathir (1970) stated that combined with rural isolation and "inbreeding", this explained a racial disposition that was "easy going and tolerant" (Kahn 2006, p. 111).

Korean ethnic was formed by generations of uncertainty, difficult environmental conditions and wars. When Korea started its own industrialization from 1960s, Korea was one of the poorest countries in the world with GDP per capita less than USD100 annually. Thus, in order to gain foods and shelter for home, hard work is the only way. During instable times, securing a job is the most urgent priority. Wage and works conditions are not as important. In the initial stage of Korean industrialization, Korean labors had very long working hours with few holidays and low wages. Milliman, Kim and Glinow (1993) suggested that Korean work more hours than employees in any other country in the industrialized world and take less vacation than workers in Japan, the U.S., or Germany. Korean athletes are also known for training day and night to win gold medals; the best example is figure skater Kim Yuna, who is well-known for her harsh training regimen. The high level of labor productivity by South Korean industrial workers has been one of the most important factors of industrialization and growth. (Huntington 2000; Kim and Park 2003). Korean entrepreneurs such as Chung Ju Yong and Lee Kun Hee are famous for their diligence. Chung Ju

Yong, the group CEO, often visited Hyundai's project sites by himself to ensure that the work was done properly. From major construction project to ship building, Chung Ju Yong was never tiredly supervising the work process himself. As Kim (2000) stated in the book entitled "The road to Hyundai", "Korean are a people never satisfied with what they had achieved, and always full of new ideas to get solution". This lack of satisfaction is consistent with its uncertainty avoidance culture. They are not satisfied with what has been achieved lead to higher level of works. The Korean dream is not limited to becoming a local 'champion', but to be the best in the world. Desire to achieve big encouraged its people to work harder and smarter. From the construction sector, ship building, steel making, automobile and to electronic industries, Korean firms have successfully gotten on top of the world in one generation. This demonstrates that the differences of values for work and leisure have substantially influenced the economic progress of the country.

The uncertainty avoidance has associated with the "palli-palli" (being fast) culture of Korea. Basically, Koreans believe that being quick and fast may save costs. This belief has been adopted in many Korean firms' management themes. For instance, the success of Hyundai management is attributed by their "quick ability", with the delivery of goods and service before rivals. Hyundai founder, Chung Ju Yong, stated that to compete with other international rivals, Hyundai has to deliver something different from competitors. To achieve this, the management theme is quick delivery with good quality and lower prices (Kim 2000). Chung Ju Yong stated that the ability to work fast is one of the main

strengths of Hyundai. It has contributed to the high productivity which leads to higher income growth. The LG Electronic has also pursed the Fast Growth strategy, which aiming fast growth and fast innovation. Under the Fast Growth strategy, LG believe that it help to expand market size and earning quickly; and the Fast Innovation strategy involves setting extremely high innovation goals and securing a competitive edge, aiming for a target of 30 percent more than industry rivals can do. Under the Fast strategy, LG want to ensure 30 percent more sales, more new product and technology development that are faster by 30 percent than competitors. The "quick" (palli-palli) culture of Korea which stresses "fast" undoubtedly has help the Korean technology-intensive firms to compete in the fast change industries.

The hard work cultures of Korean do not belong to working population only. Korean students are also famous for their long study hours, particularly among high school students. According to a report by Korea's Ministry of Health, Welfare and Family Affairs, Korean youth study an average of three hours more per day than adolescents in 30 other OECD member countries (Choson Ilbo 10 August 2009). According to the report, Korean youth spend around 7 hours and 50 minutes at school per day (see Table 5.10), which means Korean students are required to stay the whole day at school.

Table 5.10 Korean youth (age between 15 and 24) study hours compared to other countries

	Korea	Japan	German	British/UK	Malaysia	OECD average
Study hours at school per day	7 h 50 min	5 h 21 min	5 h 4 min	3 h 49 min	5 h	5 h
Time spent on private tutoring per week	1 h 59 min	22 min	19 min	16 min		

Source: Comparative study on the life patterns of children and adolescents by the National Youth Policy Institute, Choson Ilbo 10 August 2009

There are many examples indicate the long study hours of Korean students. An example taken from the Korea Times show a Korean high school student's daily schedule as follows:

> …A student gets up at 6 a.m. and reads the newspaper to get an idea on how to write essays. He goes to school by 7 a.m. and studies English words and does English listening practice for an hour. He attends classes until 1 p.m. and has lunch for an hour. He attends classes for three more hours, and works on a quiz until 5:35 p.m. He watches lectures on EBS TV for an hour before having dinner, studies at school until 9 p.m. and then comes home and continues to study until 12:30 a.m (Korea Times 6 August 2009)…

Another example was given by Hwang Yu Han (2001), as illustrated in the following story, which also demonstrates how hard the Korean student's common life is.

> …Daily dorm life at school was similar to military life. We woke up at 5:00 a.m., cleaned our room, washed our faces, jogged around the playground five times, and then studied 2 h before breakfast. We had about 30 min of free time between breakfast and when school started. School usually started at 8:00 a.m. and ended around 5:00 p.m. We ate dinner soon after school ended and then prepared for evening study, which often lasted until 11:00 p.m.… After evening study, we often had late dinner, which allowed us to sleep well. We usually went to bed after midnight. There were not many students among us who went home on Saturday afternoon when school was over. Sunday was the only day we could have some sort of private life... Why did I study so hard? The answer is simple. I studied hard to pass the entrance exam of Seoul National University (SNU). Why was my goal SNU? I believed that my socioeconomic status as a son of a coal briquette deliveryman could be promoted by entering the most prestigious university. I believed that passing the SNU entrance exam would guarantee my job, finances, house, family, and future…

> This was why students were willing to sacrifice their time, energy, and money as an investment into their future… many South Koreans still believe that if one passes an entrance exam of a prestigious university, his or her future is one that is guaranteed (Hwang Yu Han 2001, p.616).

The story above demonstrates how much Korean society stresses educational achievement and survival. As a competitive culture, succeeding in education is vital to ensuring the survival in the society. By enhancing ability and performance through education, it will be able to help in dealing with future uncertainty and ensuring survival. Particularly since the 1997 crisis, Korean people have stressed more on children education achievement. Korean parents continuously place children education as number one priority in life planning. This is evident in the high spending on education fees for children. For a high UAI society, the uncertainty inherent of life is felt as a continuous threat that must be fought, and strengthening individual ability is one way to fight this potential threat. An inner urge to work hard is valued highly by the society and seen as necessary for well living. As supported by the previous section in this study, high UA cultures' students achieve better academic performance. The test result show that Uncertainty Avoidance index is highly related to academic achievement as measured by 2009 PISA results, with correlation efficient at 0.7796. It is believed that hard work values, discipline and future-oriented attitudes have contributed to the students' study attitude.

It is further proven with the statistics test in this study. Most of the high Uncertainty Avoidance cultures such as China, Finland, Japan, Germany, Norway, S. Korea, Sweden and Switzerland are top performer in student academic score (PISA). Low UAI cultures such as Latin American countries (such as Argentina, Brazil, Chile, Columbia, Peru, Mexico) have shown poorer performance in terms of student academic score. Interestingly, the Confucian bloc cultures –Japan, Hong Kong, Korea, Macao, Shanghai, Singapore and Taiwan, which stress values of determination and hard work - have continuously topped the list in the ranking of the PISA from 2009 to 2012, as shown in the Table 5.11.

Table 5.11 Students performances in mathematics, sciences and reading in OECD's PISA[18] list

Year 2012					
Rank	Mathematics mean score		Science mean score		Reading mean score	
1	Shanghai China	613	Shanghai	580	Shanghai	570
2	Singapore	573	Hong Kong	555	Hong Kong	545
3	Hong Kong	561	Singapore	551	Singapore	542
4	Chinese Taipei	560	Japan	547	Japan	538
5	**South Korea**	**554**	Finland	545	**South Korea**	**536**
6	Macao China	538	Estonia	541	Finland	524
7	Japan	536	**South Korea**	**538**	Taiwan	523
51	**Malaysia**	**421**	**Malaysia**	**398**	**Malaysia**	**420**
Year 2009					
Rank	Mathematics mean score		Science mean score		Mathematics mean score	
1	Shanghai China	600	Shanghai	575	Shanghai China	556
2	Singapore	562	Finland	554	South Korea	539
3	Hong Kong	555	Hong Kong	549	Finland	536
4	**South Korea**	**546**	Singapore	542	Hong Kong	533
5	Taiwan	543	Japan	539	Singapore	526
6	Finland	541	**South Korea**	**538**	Canada	524
9	Japan	529	New Zealand	532	New Zealand	521
57	**Malaysia**	**404**	**Malaysia**	**414**	**Malaysia**	**422**

Source: OECD

[18] Program for International Student (PISA) 2012 is the OECD program's 5th survey. It assessed the competencies of 15-year-olds in reading, mathematics and science (with a focus on mathematics) in 65 countries and economies. In 44 of those countries and economies about 85 000 students also took part in an optional assessment of creative problem solving.

Education specialist such as Lianghuo Fan, head of Science Education Research Centre in Singapore, have commented that, "In all high-performing countries, students overall showed strong motivation towards learning, which is particularly evident in the subjects, Mathematics and Science. Those countries also have a very supportive social environment for education. For example, parents place more value on their children's education and have higher expectation, which will affect students' attitude and their behavior in learning". (The Star Online 8 December 2013).

PISA study also suggests the similar view, where student's motivation of learning is significant factor of success. PISA (2014) stated that, "when students believe that investing effort in learning will make a difference, they score significantly higher in mathematics… the large proportions of students in most countries consistently believe that student achievement is mainly a product of hard work, rather than inherited intelligence, suggest that education and its social context can make a difference in instilling values that foster success in education". The PISA study showed that among the highest-achieving students in OECD countries, those who strongly agreed that they can succeed in mathematics if they put in enough effort show a performance advantage of 36 score points over students who did not agree. The PISA (2014) study showed that students' perseverance attitudes have a positive relationship with mathematic score, demonstrating that a commitment to hard work is an important factor for education achievement. It is consistent with the case of South Korea, where subject of mathematic is always the most important subject for Korean students.

In comparing to Korea, Malaysia has scored much lower in mathematics and science subjects. For many years, Malaysian students have shown low interest on mathematics and science subjects. This is evidenced by the low number of science stream students (less than 30 per cent) in Malaysia high schools. Based on the PISA test, average score of Malaysian students on reading (56%), mathematics (41%) and sciences (57%) literacy scaled below the average attained by all OCED countries. This compares to 80% above in the OCED countries, on average. Malaysia's 15-year-olds were not only found to be below the international average in the three critical subjects, but also four to five years behind their peers in Shanghai, Singapore, Japan, South Korea, Hong Kong, and Taiwan.

The poor performance of Malaysian students in PISA test has drew attention of Malaysian government. Although Malaysian public spending in education has been the highest in the East Asian region over the past few decades, the result is unsatisfactory as compared to top performing countries like Singapore, Japan and South Korea. In 2011, the Malaysian federal government's spending on primary and secondary was 3.8 per cent of GDP, or 16 per cent of total government spending, which was not only higher than the OECD average of 3.4% of GDP and 8.7 per cent of total public spending respectively, but at par with or more than top-performing countries (Malaysia Education Blue Print 2013-2015). In 2012, with an education budget of RM36 billion, Malaysia government has continued to allocate the largest proportion of its budget (Malaysia Education Blue Print 2013-2015). Nonetheless, will high spending solve the under-

achievement problem? High-performing areas such as Shanghai China, Taiwan, Korea, and Japan all are from high UAI cultures which stress values of perseverance and hard work. Study hours at school and private tutoring of Northeast Asian students are also the longest compared to other countries. Relatively, Malaysian study hours at school are much shorter than Korea. This reveals that learning motivation and commitment towards studying hard are crucial factors. Certainly, the Malaysian government needs to determine what has caused the low motivation of Malaysian students in studying mathematics and sciences. Simply investing increasing amounts of money in education does not guarantee high performance.

Korea is a high UAI society, and the inner urges to be busy and hurried are observable in Korean society. A similar phenomenon is seen in Hong Kong, Taiwan, and Mainland China as highly competitive societies. People are always busy and feel that time is precious. The world and the future are seen as being full of uncertainty; therefore things must be settled as soon as possible. But Malaysian values the beauty of slowness, not the "culture of hurriedness". Malaysian values the importance of leisure, joy, love and religion. Busy life with tremendous hard works to pursue high achievement is undesirable. Malaysian has one common saying- "Biar lambat asalkan selamat", meaning "better to be late and safe". This phrase illustrates well the general thought patterns of Malay people and behavior in daily lives. Spending long time on working something out is not an issue as long as it is done. But for Korean, time is money and it is not good to be relaxed. "Relaxed" cost money and waste of many resources. Thus,

being top in education is essential. For many Korean parents, children's educations are planned from their pre-school time. Kindergarten, primary school and choice of secondary school are all associated with the target of university entrance and future career.

In Malaysia, Malay people think that individual earning or so-called *rezeki* is something fixed by God (Kadir 2007); therefore, there is no need to be so tense, stressful or hurried to pursue strong earnings or great career achievements. In Islamic teaching, Muslims should not pursue profit; thus, desire for profit should be limited. If one person is not so successful or not wealthy after working very hard, then the person should accept it as the fate. Malays are taught to keep balance between "budi" and "wealth", and not to be greedy to run after profit (Kadir 2007, p.7). Well-being, love, happiness and harmony are considered more important than achievement or materialistic gain. Belief to God can help to get peace and happiness. That is the different values compared to Korean which emphasize more on self-reliance spirit and economic gain. In Malays' belief, submit oneself to the God help a person to accept uncertainties and accept failures more easily. This helps to maintain harmony and peaceful life but it discourage aggressiveness in achieving success. In Korean society, although people think that love and relationships are very important, personal achievement in study or career must be pursued. This will ensure survival in a competitive society, and it helps to cope with the stress of being a failure. The differences in cultural values have been attributed to the different form of economic activities, which include achievements in education, business, and technology.

Overall, the high Uncertainty Avoidance culture, which emphasized on discipline, order, accuracy, hard work and long term planning, has contributed to the competitiveness of Korean industries. In an uncertain world, Korean believes that accepting challenges and working hard is the only way to maintain achievement. As a resource-poor country, they only way for Korea to achieve wealth is through hard work. What Korea has is its people, and through the power of its "human resources", Korea creates its own wealth. Malay society, which spiritually very much depends on belief in God, tends to accept uncertainties easily.

As a resource-rich country, Malay people do not need to work that hard for a good living. Being stressful, busy or tension is not desired in Malay culture, particularly in the fast change technology industry which create a lot of work stress. Technological development is important; however, there is a lot required to achieve the necessary levels. The required "stress" level in competitive technology industry is something not matched with cultural capacity of Malay. However, Korea is different. Korea is characterized as a "hurry" (*palli-palli*) culture which is used to encountering fast, quick work. The strength of Korean people to be "fast" has allowed Koreans to succeed in a competitive technological world. Korean people are used to live with stressful lives but Malays are used to relaxed lives. The relaxed and "slow" culture of Malays may explain their poor achievement in the fast-changing technology industry. Malays have a culture which has a high tolerance level for uncertainties and mistakes. This culture is not suitable for "accuracy" based technology industry. A little bit

mistakes made in production process would cause serious consequence. This cultural factor may explain why the technological development of Malaysia has been quite slow, and why so less students choose to study in science and technology based subjects.

5.6 Openness of South Korea and Malaysia and its Impacts on Trade and FDI

In the highly competitive globalized age, openness to the world is becoming more important. Under an open system, integration of national markets in the global economy is less restricted by protectionist policy. As suggested by many economists such as Adam Smith, resources will flow to the most efficient allocations under a free and open market system, which will help to increase the welfare of a country. The ideas of Adam Smith promoting the free market system are the basis of economic liberalism, which has flourished in the Western world since 18th century. Free economic system allows the free flows of capital, goods and services, but it come with the problem of fluctuation and instability at the nation level. Thus, policy regulations play a significant role in balancing fast growth and stability, as claimed by Keynesian economics. Although economic liberalism can also be supportive of government regulation to a certain degree, it tends to oppose government intervention in the free market when it inhibits free trade and open competition. Today, economic liberalism is generally considered to be opposed to non-capitalist economics orders, such as socialism and planned economies (Brown 2005).

The ideas of openness or liberalism in economy continue to spread to the world through free trade agreements and the formation of free trade zones. Deregulation, privatization, and withdrawal of the state from many areas of social

provision have been common (Harvey 2005). Even the contemporary China, which has incredible economic growth rate for the past three decade also appears to be headed in this direction. Attributed to openness, the Chinese economy has experienced tremendous change since Deng Xiao Ping advocated the open market system in 1978. The success of the Chinese economic reformation has confirmed the theory of liberalism. Harvey (2005) stated that "the advocates of the liberal ideas occupy positions of considerable influence in education, in the media, in corporate boardrooms and financial institutions, in key state institutions (treasury departments, the central banks), and also in international institutions such as the International Monetary Fund (IMF), the World Bank and the World Trade Organization (WTO) that regulate global finance and trade". Liberalism has become hegemonic as a mode of discourse for modernizing a nation (Harvey 2005).

Moon's OUI model (2004) demonstrated that openness is significant to strengthen a nation's competitiveness. Thus, this paper includes this dimension into the model to investigate how the openness affects the wealth performance of Korea and Malaysia. According to Moon and Choi (2001), Aggressiveness and Attractiveness are the two sub-variables under this dimension, which can be used to characterize two different ways of opening a country. A country demonstrates attractiveness when it creates an environment that encourages the inflow of foreigners, foreign goods, and foreign investments [inbound orientation]. On the other hand, a country is aggressive when it prefers to go into the world through emigration, exports, and foreign investments [outbound orientation]. People with

low openness act according to their emotions and are considered nationalistic and protective (Moon and Choi 2001). Based on the work of Moon and Choi (2001), the Openness's Index score is slightly higher for Malaysia overall, but Korea score higher for aggressiveness (outbound orientation) while Malaysia is higher for attractiveness (inbound orientation). This means Malaysia has become more open for foreigners and foreign values, while Korea is more aggressive at pursuing global investment and business.

Based on this study's quantitative analysis findings, the openness value level affects a country's FDI inflow and trade performance. The more open the level means the more open to trade and more foreign investment. All the richest economies in the world, such as Australia, Canada, Finland, Norway, UK, U.S, Sweden and Switzerland are top scorers in terms of openness as well as FDI inflow, which indicates that the North Western Europe is the most open cultural bloc. This is not surprising as liberalist philosophy has flourished in the region since the late 17th century. The ideas of liberalism, which is strongly associated with openness, continue to exert significant influence on the culture, politics and government of the western world for few hundred years. In other parts of the world, particularly the Asian region, the openness level is relatively much lower. The Northeast Asian countries such as China, Japan and Korea are not only less opened culturally, but also in terms of trade openness and FDI inflow. The significant positive relationship between openness values and FDI net inflows may reflect the influences of openness values on their trade and FDI inflows.

In this study, Malaysia openness index (37 per cent) is higher than Korea (21 per cent). Malaysia is relatively more comfortable getting along with other races due to its long history as a multi-cultural society. Korea, as a homogenous culture, has had a long history of isolation from the world, particularly during the Choson period, when the government purposely isolated the country from the world and international trade was discouraged. Compared to Korea, Malaysia's FDI environment is friendlier than Korea. Malaysia's trade openness index and FDI inflow per capita are also higher than South Korea. As shown in Figure 5.7 and 5.8, the relationship between openness values and trade openness, and openness with FDI openness, is significantly positive. Korea is ranked at the bottom in the Openness orientation index list as well as on trade openness and FDI inflow. Position of Malaysia is slightly higher from Korea as indicated by the Figure 5.7 and Figure 5.8. These results are consistent with other studies, in which Malaysia has been found more open than Korea generally.

Based on Inglehart's World Values Survey (2005-2009), Malaysians show higher openness levels than Koreans; for example, 31.9% of Korean answered that they would not like to have people who speak different languages as neighbors compared to 19.7% of Malaysians. This indicates that in general, Koreans feel more uncomfortable when meeting people who are different from him/herself culturally. This may due to the homogenous nature of Korea, which speaks one language and shares one culture.

Figure 5.7 The relationship between Openness and FDI net inflows per capita-highlight on Korea and Malaysia

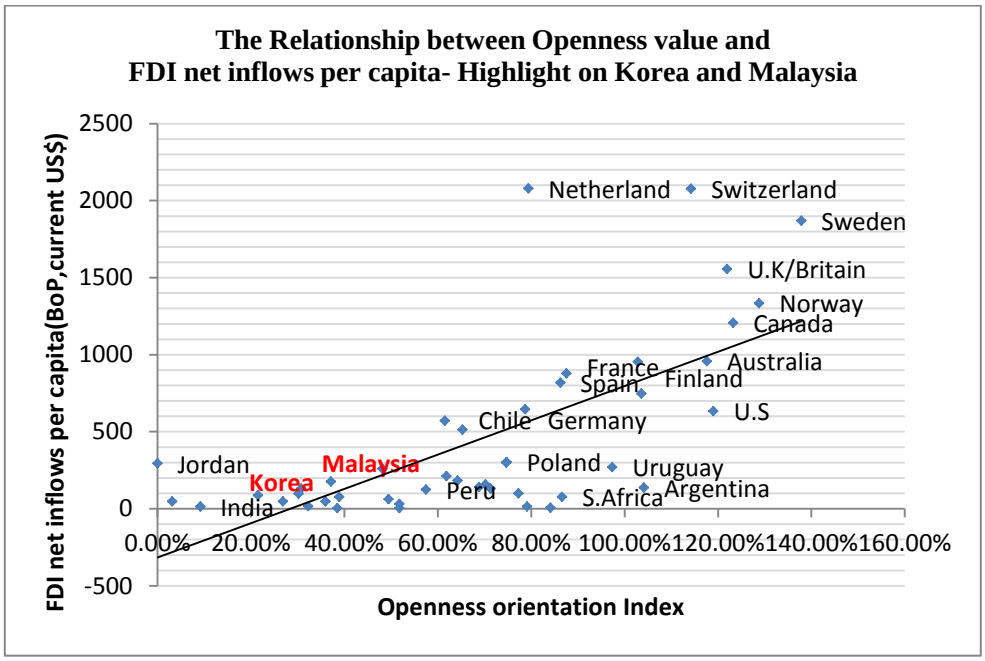
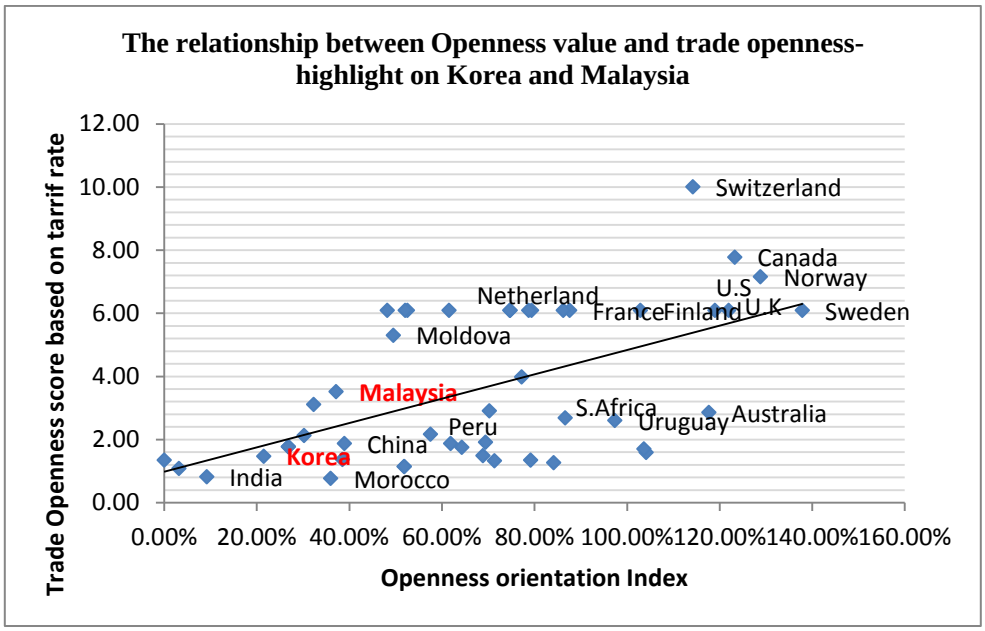


Figure 5.8 The relationship between Openness and trade openness- highlight on Korea and Malaysia



The lower openness of Korea to the world is reflected in FDI policy. As reported in the report of Economic Freedom of the World (2013), restriction of foreign ownership and investment in Korea is much higher than Malaysia, which caused a low rating in this area compared to Malaysia, as shown in Table 5.12 below. Korea's rating in term of foreign ownership restriction in 1995 was only 4.66, but increased to 7.16 in 2000 due to a substantial change of government FDI policy after 1997 crisis. Malaysia has been an FDI driven economy since the late 1980s; therefore, it is not surprising to see a favorable FDI policy in Malaysia.

Table 5.12 Rating of foreign ownership/investment restriction

	1995	2000	2005	2010	2011
Korea	4.66	7.16	5.82	5.60	5.90
Malaysia	7.31	6.61	7.67	7.13	7.12

Source: Economic freedom of the world: 2013 Annual Report

5.6.1 Korea's openness

Korea, as an economy which promoted export growth since the 1960s, had high levels of restriction on foreign investments in the early development stage, particularly during Park Chung Hee's administration. In 1961, there was only one FDI project approved by the government, which increased to 50 projects in 1970 and 55 in 1982 (Stoever 2002, p.53). From 1961 to 1984, the number of yearly FDI approval projects was typically less than one hundred. Protectionist policy was dominant in the nation state development policy. Korean local firms' growth was given top priority, with strict import policies and FDI restrictions. Foreign investment climate was slightly improved from mid 1980s following the country leadership change. Chung Doo Hwan's administration, a young government which elected politicians mostly less than 50 years old, started economic liberalization measures. Some Korean policy makers became more vocal in support of the desirability of introducing more competition into domestic markets, as a way to gain the benefits of greater openness predicted by economic theory.

Protectionist policy was reduced both to import restrictions as well as in FDI policy. In 1985, the "positive list" (allowing FDI in specific sectors) was replaced by "negative list" (allowing FDI in all sector except where specifically prohibited), which led to substantial increased number of industries open to FDI.

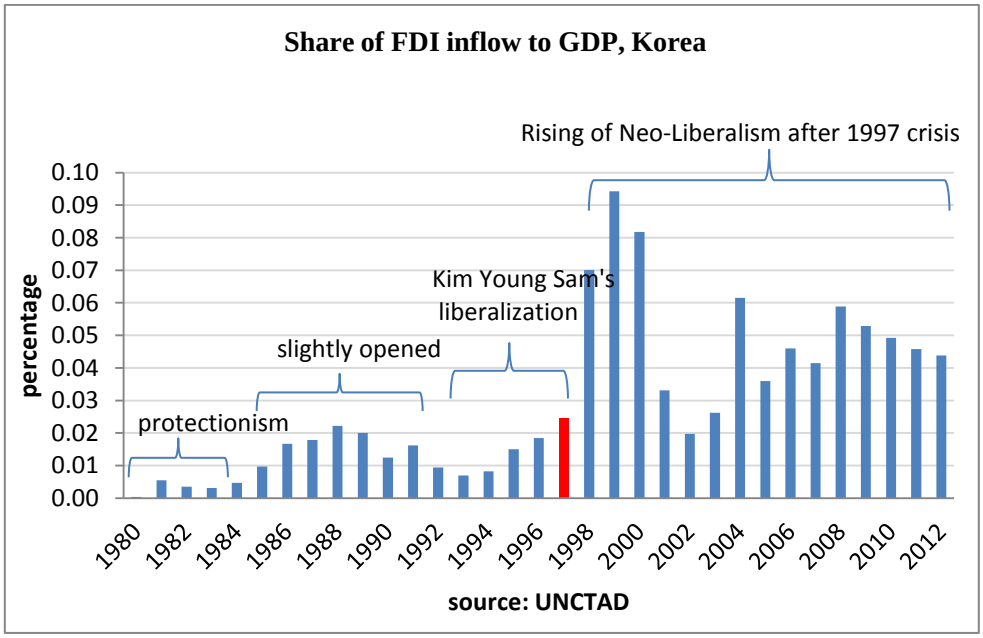
Nonetheless, protectionism remained strong throughout the 1980s. Korean local firms continued to resist FDI competition and put pressure on the government to keep foreign investors out of Korea (Stoever 2002). However, after Kim Young Sam took over the administration in 1993, he continues to adopt significant measure toward economic liberalization. One of the measures is to promote foreign investments in Korea. Kim Young Sam (25 Feb 1994) stated that;

> …Our goal is to make Korea one of the best places in the world for foreigners to do business, and we believe it is very important to make Korea secure and attractive for foreign investors (Kim Young Sam cited Kim 1996, p.18)...

Since then, the Korean government has reduced barriers to foreign participation in the Korean market and removed obstacles to investment and joint ventures. For instance, one-stop centers for foreign investors were opened, and the decision on an application for building a plant is made within forty-five day. Foreign companies that invest in Korea with strategic cutting-edge technology will have their corporate tax waived until years after they have earned their first profits (Kim 1996, p.18). Stock market and bond market also opened to foreign investors. Consequently, FDI in Korea rose substantially, as shown in Figure 5.9.

Share of FDI inflow to GDP rose continuously since 1993 to 1997 under the liberalization program.

Figure 5.9 Share of FDI inflow to GDP, Korea



Under Kim Young Sam's administration, liberalization of Korean economy was speed up under the *segyehwa* (globalization) policy. According to Kim, building a "New Korea" is important to cure the so-called "Korean disease" inherited from authoritarianism of the past. He believed that Korea need new vision in the twenty-first century by clamming that "entails rationalizing all aspects of life" and "reforms in every area" (Lim and Jang 2006). Kim Young Sam stated;

> …Globalization is the shortcut which will lead us to building a first-class country in the 21st century…It is aimed at realizing globalization in all sectors-politics, foreign affairs, economy, society, education and culture and sports… it is necessary to enhance our viewpoints, way of thinking, system and practices to the world class level (Korea Times 7 January 2005 cited Lim and Jang 2006)…

As a consequence, the Korean financial sector and market was greatly liberalized. Korea's traditional development model, which stressed on state's role, was dismantled. Although the aggressive liberalization reforms caused serious financial crisis in 1997, neoliberalism continued to override the nation economic direction under the new structural adjustment. Under the IMF rescue package, neoliberalism gained dominance with greater trade liberalization and removal of all barriers to the cross-border flows of capital, goods and services, with the extended role of the market and the re-oriented role of state (Lim and Jang 2006). Free market and limited state intervention was the basic principle of the reforms. The key reforms required by the IMF included the need to "break the close links between government and business" that defined the Korean development model, "ensure the integration of the national economy with international financial markets," increase the "potential for foreign participation in domestic financial systems," and "remove impediments to growth such as monopolies and trade barriers…" (IMF 1999 cited Crotty and Lee 2004). Under the Kim Dae Jung's

administration, foreign investment was promoted greatly not only to rescue some troubled Korean firms but also to help Korean economy to grow. As a consequent, the number of foreign-invested companies in Korea has increased substantially since 1998. As indicated in the Figure 5.9, FDI inflow to Korea rose exponentially particularly from 1998 to 2000. This was mainly due to purchases of troubled Korean companies by foreign companies after the crisis. The overall contribution of FDI to Korean GDP has been much higher compared to pre-1997 crisis. To promote foreign investments in Korea, the Korean government pursed a series of promotion programs. Passage of the Foreign Investment Promotion Act in 1998 greatly facilitated these efforts. The Act opened up 99.8 percent of Korea's industries to foreign investment and provided significant protection for investors' interest. Under the Act, foreign investors receive incentives including tax breaks, cash grants and affordable land (MOFA, Korea). As a result, the great openness to foreign investors made big achievement to Korea. Attractions of Korea to foreign investors included its R&D facilities, logistics centers and pool of human resources in science and engineering. The Korean government aims to make Korea as the North East Asian financial hub. Following the liberalizations, foreign investors now own about 60 percent of the shares in some of Korea's top companies and nearly 33 percent of stock listed on Korea's main stock exchange (IBP 2013).

Nonetheless, despite the friendly FDI policy and substantial increase of FDI in Korea, in recent years FDI has fallen as shown in the Figure 5.9. Share of FDI inflow to nation GDP dropped consistently from year 2008-2012. Based on the

meeting of Korea's former Prime Minister Kim Hwang-sik with foreign investors, it was found that Korea suffered an image problem for its hostile attitudes toward foreign investors (Korea Times 21 June 2011). International investors were concerned when about 10 financial regulators are being investigated or jailed for taking bribes. The problem of Lone Star from KEB also confused many foreign investors about the sincerity of Korean government in ensuring free capital movement (Korea Times 21 June 2011). Internal pressure from local firms to against foreign competition in local market also has been continued (Stoever 2002). David Eldon, the chairman of the Dubai International Financial Center Authority, who also serves as a special advisor to the Presidential Committee on national competitiveness, commented that Korea should take a friendlier attitude towards foreigners. He mentioned that, "the Korean government can do a number of things to rules and regulations that will assist in creating an attractive investment climate, but the key must be how willing the Korean people are to accept foreigners and their investments. In this regard there seem to be some doubt…other economies were moving much quicker than Korea in creating financial centers, and Shanghai is a good example, and other Chinese cities are also moving forward quickly" (Korea Times 29 May 2008).

The investment climate's report of U.S Bureau of Economic and Business Affairs (2013) mentions that unclear and opaque regulatory decision-making has remained a significant concern for foreign investors in Korea. According to the report, investors are also concerned about significant interest groups that pressure the government to protect the Korean local market from what is perceived as

foreign domination. In addition, the volatility in labor-management relations is also an issue that may hamper FDI. Stoever (2002) comments that the bureaucratic processes is one of the most difficult obstacles to attract FDI in Korea. Stoever (2002) in his study find that one major problem was to get lower-level bureaucrats to implement reforms promulgated by top-level ministers, inefficiencies of lower-level bureaucrats in handling FDI application created many delays. Certainly the Korean government need to do a lot more to create business friendly environment to foreign investors.

Korea's trade openness also has the similar development path as FDI openness. Historically, Korea closed its door to international trade during Choson dynasty. The national history of international exposure and trade is rather short (Sakong 1993, p.20). Although Korea began industrialization after the Korean War, the Korean government imposed high restrictions on import market from 1960s-1970s. During Park Chung Hee's administration, the trade regime was characterized as outward-looking on the export side and restrictive on the import side. To facilitate the growth of local infant industries particular the Korean manufacturers, Korean government had imposed the high tariff barriers as well as non-tariff barriers to import products. Import liberalization plan was initiated in late 1970s when the balance of payment improved substantially (Sakong 1993, p. 87). Following the change of government in 1981, restrictions on import items were greatly reduced (see Table 5.13). The decision to liberalize was based on the belief that to increase national competitiveness, import liberalization was inevitable.

Table 5.13 Korea's import liberalization, 1977-1991

Year	All items	Items with automatic approval
1977	1312	691
1978	1097	712
1979	1010	683
1980	1020	693
1981	7645	5576
1982	7560	5791
1983	7560	6078
1984	7915	6712
1985	7915	6945
1986	7915	7245
1987	7911	7408
1988	10241	9694
1989	10241	9776
1990	10274	9898
1991	10274	9991

Source: Il Sakong, 1993, p.88

Since then, Korea's openness towards international trade has continued to increase steadily. As shown in the Figure 5.10, Korea's trade openness was pretty low during 1980s, but improved substantially from year 1990. For instance, by 1983, of some 10,000 product classes, 19.6 percent contained import restrictions (Dornbusch 1992). By 1989, the fraction had dropped to only 5.3 percent and most of these were primary commodities. Only 46 industrial products continue to have import licensing or prohibition (Dornbusch 1992). With the new leadership and dominance of liberalists in the elite groups, Korean leaders believed that Korea has no choice except open up to foreign competition to enhance the local industrialist' competition. Dornbusch (1992) mentions that with the help of a

selectively liberal import strategy, Korea has been able to develop a highly competitive manufacturing sector that offers its own brand-name manufactures of increasing sophistication. Korea's trade liberalization has sped up since 1997. Through signing numbers of free trade agreements, the overall tariff barriers have declined greatly. According to Korea's MOFA, as of March 2012, Korea had effectuated a total of eight FTAs with 45 countries, including the U.S., ASEAN, India, the EU, Peru, Chile, Singapore, and EFTA. Korea also aims to contribute to regional integration within East Asia through FTAs with China and Japan. Overall, Korea's trade openness has greatly improved.

Figure 5.10 International trade freedoms rating of Korea

Historically, Korea was secluded from the outside world and gained the name of "Hermit Kingdom of the Orient". Korea closed herself off not only culturally but also economically. Korea as a collectivist society, which often

stress on identity of "we" versus "other" have influenced the people's thoughts and worldviews, particularly their openness level to other groups, or other people groups. In the past, ethnocentrism and conservatism of Korean business firms were big obstacles for Korean firms to move forward in globalized business world, and this cultural obstacle still exists more or less. At the nation level, the tendency to protect local industries as well as cultural distance have created unfriendly business environment to foreign investors. Although the cultural openness level remain low compared to other countries, however it has improved steadily. While Korea has been doing well in liberalized its trade, openness towards FDI must be further enhanced for greater growth and job creations.

5.6.2 Malaysia's openness, protectionism and Islamization

Several studies (Moon and Choi 2001; Inglehart's World Values Survey) have shown that Malaysia is more open than Korea. As a multicultural society, Malaysians are used to deal with different races in daily lives, and learned to live harmony in the multi-ethnic society. Malaysia as been exposed to Western systems for 500 years, under Portugal, Holland and British. Despite the higher openness level and longer history of exposure to the world, the strong Islamic culture and nationalism of Malay remain strong today. Compared to Koreans, Malaysians are considered more traditional culturally and conservative in accepting the globalization. Korea, is a secular state and the whole nation has headed towards modernization, which promotes values of free competitions and

openness. However in Malaysia, the modernization path seems to encounter a lot of delays, and some parts even have a reverse trend. Racial-based systems remain a dominant ideology in the nation development plan. Islamic influences have been getting more influential through government institutions, school education and law. Until today, Malay society remains traditional, with strong Islamic religious beliefs and restricted social codes. Religious obligations and national pride are always the first among the Muslim/Malay community. As shown in the World Value Survey (2005-2009), majority of Malaysian think that religious belief is important in their child quality.

For conservative groups, modernization and liberalization is seen as threats to Malay's culture and economic status. Protecting local culture, particularly Islam, is considered essential. Even the current Prime Minister, Najib Abdullah, who has been described as liberalist in the past, also has changed his standpoint towards the value of liberalization. In a speech in the 57th national-level Quran Recital Assembly on 13 May, 2014, Najib stated;

> …Islam and its followers are being tested by new threats under the guise of humanism, secularism, liberalism and human right…we will not tolerate any demands or right to apostasy by Muslims, or deny Muslim their right to be governed by Shariah Courts and neither will we allow Muslims to engage in LGBT (lesbian, gay, bisexual and transgender) activities (Najib cited the Malaysian Insider 14 May 2014)…

Even though Malaysia is a secular state under the constitution, the Islamization of the country has been very rapid in recent years. Anti-west sentiments remain strong among the Muslim society. It is evidenced with the local media reports with high frequency of anti-west commendatory. Local Malay newspapers (example Utusan) frequently publish anti-U.S and anti-globalization articles. There are number of reasons contributing to the anti-West sentiment among Malays, such as for historical reason. Malaysia was occupied by the British for two hundred years. The second reason is America's involvement in the Israel-Palestine issue and its intervention in Arab Islamic region. Generally Muslims are resented with the U.S intervention in the Muslim countries.

When required to choose between religion, nation pride and economy, Islam is always the number one priority in Muslim society. For instance, when U.S. supported Israel in the issue of GAZA in 2009, it drew boycotts from 2000 Muslim restaurants in Malaysia and Coca-Cola products were removed from their menus. Malaysian Islam NGOs called boycott campaigns against American products, such as boycott Macdonald, Coca-Cola (BBC News 4 December 2002). The anti-American products campaign was supported by Malaysia leaders that time. For instance, Mahathir once said that, "If you stop accepting US currency, the US can't trade and cannot make any money, it will become very poor and it will have to stop the production of more and more weapons in order to kill people. People must act, they won't die if they don't drink Coca-Cola" (BBC News 9 January 2009). In addition to boycott campaigns from civilian groups, the

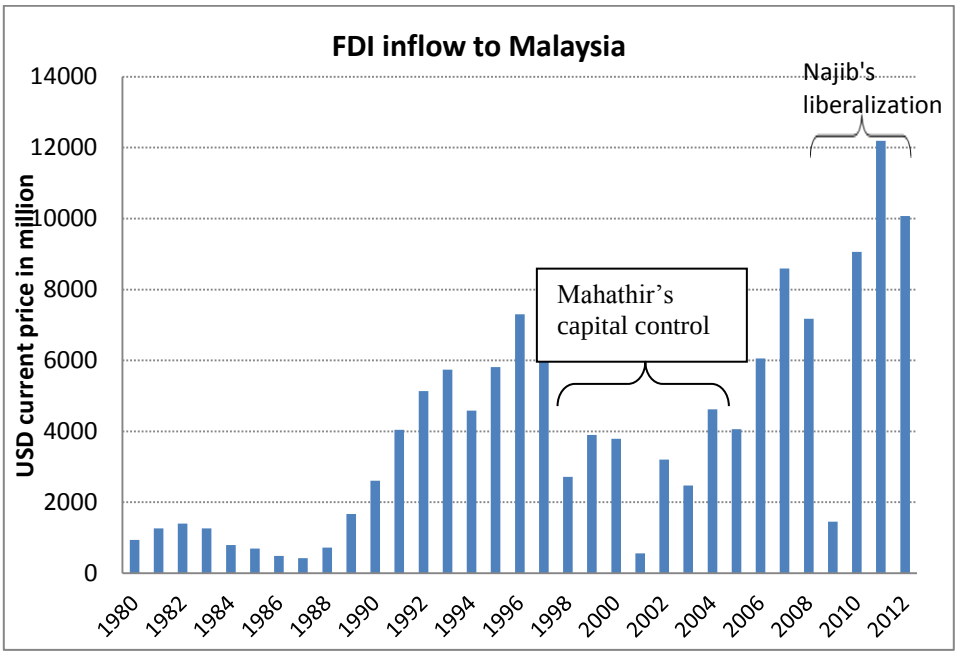
Malaysia government also made the same move by suspending US-FTA talk in 2009. Malaysia's International Trade and Industry Minister Muhyiddin Yassin announced that the US-FTA talk was suspended temporarily as a protest against the U.S support of an Israeli invasion of Gaza in 2009.

Clearly, nationalism and Islamism have affected on the nation liberalization process. Particularly, the values of nation leaders have had significant impacts on nation policy making. To voice against the west "imperialism", Mahathir was one of the outspoken leaders who led the world's Muslim community. Since Mahathir came to the power in early 1980s, he was known for his anti-Westernism, the context through which he often expressed his nationalistic sentiments. He used to condemn the "Pro-West" policy by the Malaysia first Prime Minister-Tunku Abdul Rahman. Thus, after Mahathir took over the Prime Minister office in 1981, Mahathir introduced "Buy British Last" policy which allowed him to make a visible and firm stand against the kinds of Western manipulations ha had always resented (Furuoka 2007, p.4). The campaign could be interpreted as retaliation by the Malaysian government against British policy. After that, Mahathir began his Look East Policy. The Look East Policy was announced during the British foreign minister's visit to Kuala Lumpur to mend Britain's deteriorating relations with Malaysia. Instead of learning and benefiting from the West, Mahathir wished to learn from the East. The resentment of the West by Mahathir was one of the important factors contributing to the founding of Look East Policy.

Mahathir's anti-Westernism and anti-Jews attitudes can be noticed when he ran the country from 1980s-early 2000s. For instance, Mahathir once blamed U.S speculators for causing the 1997 Asian financial crisis. He said: "The Jews robbed the Palestinians of everything, but in Malaysia they could not do so, hence they do this, depress the ringgit (International Herald Tribune 11 October 1997)". Mahathir think that if international financial regulators fail to regulate the greedy speculation activities, then the country should control them internally. Thus, to rescue the Malaysian economy from collapse, Mahathir's administration imposed heavy capital controls, pegged the ringgit to the USD, and restricted foreign capital inflows into portfolio investments. To control the ringgit exchange market, the offshore ringgit market was eliminated, ringgits held abroad were invalid, and ringgit lending by Malaysians to foreigners was prohibited. What was more influential was the strict control of international capital flow in share market. Foreigners who sold shares on the Kuala Lumpur Stock Exchange could not take the money out for a year, but this was replaced by a graduated tax on outflows and exit taxes on capital gains. Consequently, foreign portfolio investments sharply declined after the capital control began. Total investments and FDI inflow performance were also not encouraging since the 1997 crisis, as shown in figures 5.11, 5.12, and 5.13. FDI inflow into Malaysia as a share of World Total FDI has shown a discouraging trend, particular during 1998-2003. Nonetheless, when Malaysia partially liberalized the exchange control and capital market in 2005, FDI inflow into Malaysia increased. FDI inflow to Malaysia improved under the Najib's liberalization policy beginning in 2009. Nonetheless,

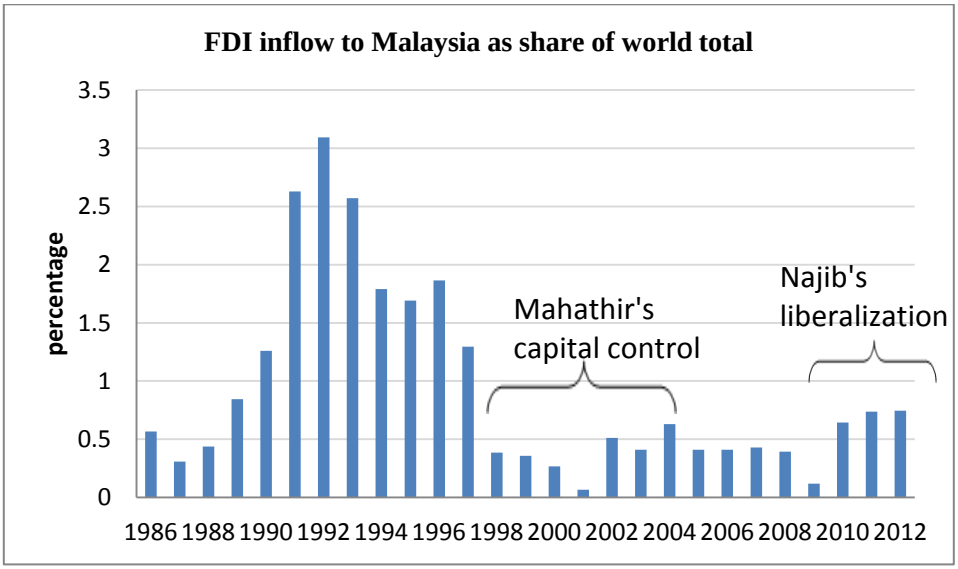
the total investments as percentage of GDP of Malaysia has poorly performed compared to South Korea. Total investment (% of GDP) in Malaysia fell from 43 percent in 1997 to 22 percent in 1999, and has not been able to rebound substantially until today.

Figure 5.11 FDI inflow into Malaysia



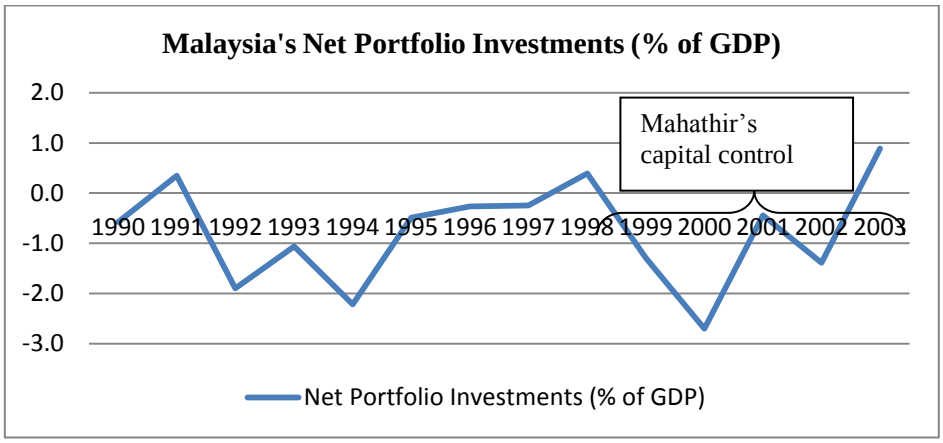
Source: UNCTAD

Figure 5.12 FDI Inflow into Malaysia as share of world total



Source: UNCTAD

Figure 5.13 Malaysia's net portfolio investments (% of GDP)



Source: Asia Regional Integration Centre 2010

Malaysian nationalism and protectionism have influenced the trade liberalization process as well; one example is US-Malaysia FTA talk. The free trade agreement negotiation between US-Malaysia started in 2006 and had 8 round meeting. However, the process of reaching the agreement has been very slow. When the first round of talk was held in 2006, it drew a few hundred people protesting on the street. The anti US-Malaysia FTA's coalition includes Consumer Association Penang, the Malaysian Trade Union Congress and the Islamic Youth Movement Malaysia (ABIM). As usual, Malaysia's former Prime Minister Mahathir was also against of US-Malaysia FTA talk. Mahathir stated that an FTA with the US could harm the economy by undermining the New Economic Policy, which was promulgated in the 1970s to give ethnic Malays and other indigenous groups special privileges to narrow the wealth gap with Chinese Malaysian (Malaysia kini 2006).

> …I understand that the Americans are particularly interested in government procurement. They want to be able to access government procurement but we have used government procurement in order to correct the (economic) imbalances under the New Economic Policy (NEP) to give Bumiputeras a chance (Mahathir 2006 cited Malaysia kini 22 March 2006)…

Under the free trade agreement, U.S government would get greater access to Malaysia's financial sector, which is controlled by ethnic Malays under government support. Domestic protected industries, such as the Proton national automotive project, might also be affected if a US-Malaysia FTA is launched. Thus, after having several rounds of negotiation, the FTA talk faced a deadlock due to disagreement over Malaysia's ethnic-based policy. Rafidah Aziz, Malaysia's Trade Minister in 2007, stated;

> ...Malaysia's discrimination policies for its majority ethnic Malays would be excluded from negotiations. That is sensitive or "no-go" issues. The attitude of our government is that the native Malay policies are not compromised and are non-negotiable (Rafidah Aziz cited Bernama 15 Feb, 2007)…

As a result, the FTA talks between US-Malaysia have yet to be achieved. Malaysia's government policy, which only offers government procurement to Malay firms, is against U.S principles, which wants the Malaysia government to

open up free competition for U.S companies to bid for government contracts. In addition to the disagreement over the FTA content, the U.S involvement in Israel-Palestine issues also affected the progress. In 2009, Malaysia's International Trade and Industry Minister Muhyiddin Yassin announced that the US-FTA talks have been suspended as a temporary protest against U.S support of an Israeli invasion of Gaza.

However, since Najib assumed the premiership in April 2009, Malaysia's policy towards the United States has become more cooperative. This is evidenced by a series of decisions and new policy actions. Najib intends to improve Malaysia-US relations as major component of his foreign policy agenda. He also hopes to increase the bilateral trade and investment flows between Malaysia and the United States, and decided to resume talks in joining the Trans-Pacific Partnership (TPP) negotiations (Kuik 2012). During Najib's visit to United States in April 2013, Najib stated that Malaysia agreed in principal to be a member of the Obama administration driven Trans-Pacific Partnership to forge economic integration in the Asia Pacific region (Bernama 13 April 2013). Najib also stated that Malaysia wanted more investors from the United States (Free Malaysia Today 30 September 2013). One of biggest investments from the U.S companies recently was by Coca Cola, with an investment of RM1 billion to build a bottling plant in Nilai. Taking a different approach from previous leadership, Najib has shown a liberal attitude towards the West and is more pragmatic in dealing with economic issues. Under the liberalization policy of the Najib administration, FDI inflow to Malaysia increased substantially since 2008 as shown in the Figure 5.11.

Najib's administration believes that through liberalization of trade and foreign investments, Malaysia will able to leap and move out from middle income trap. However, the US-Malaysia FTA continues to be protested by local NGOs. One of the vocal critics is the Malay Economic Action Council (MTEM), which has expressed fear over the fate of Bumiputra SMEs, among others, as they may have to compete with bigger companies from the U.S if the FTA is ratified (The Star 13 September 2013). In facing this problem, the current Trade Minister-Mustapa has met the MTEM leaders separately at least six times, in order to understand their concern. The nationalism and protectionism has been the barrier for liberalizing more trade and investments.

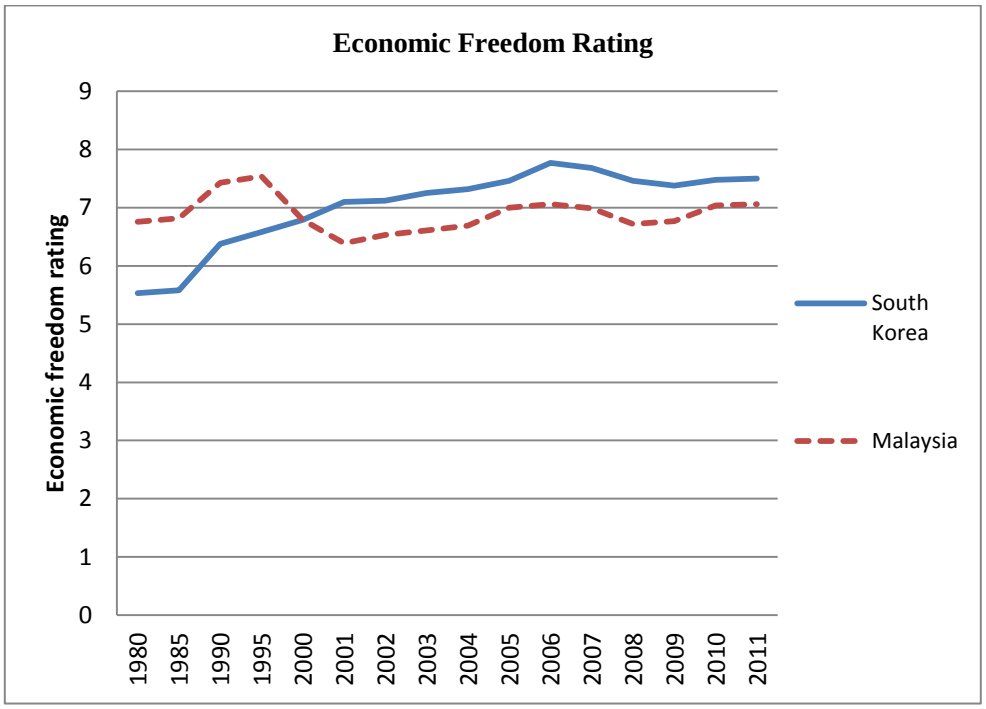
Figure 5.14 shows the economic freedom rating of South Korea and Malaysia. The economic freedom rating of Korea has gradually improved in recent years. This demonstrates that the openness level of Korea to outsiders is increased. The Korean government has stepped up their efforts to meet international standards and rules for attracting business. The increasing number of foreigners in South Korea is also another indicator of Korean globalization. Malaysia economic freedom and openness continues to be restrained by its ethnic-based policy. The current Malaysia's Prime Minister-Najib Razak is somewhat more liberal than former leaders; however, the Bumiputra policy remains as core agenda of development policy. Najib (2013) stated;

> …Malaysia's dream of becoming a high-income nation would be meaningless if the country's largest demographic group were left economically backward. As the majority

> race, the economic empowerment agenda of the Malays and Bumiputra should be the core national agenda...What is the purpose if our country is advanced but its majority race is sidelined and unprotected? (The Malay Mail Online 5 December 2013)

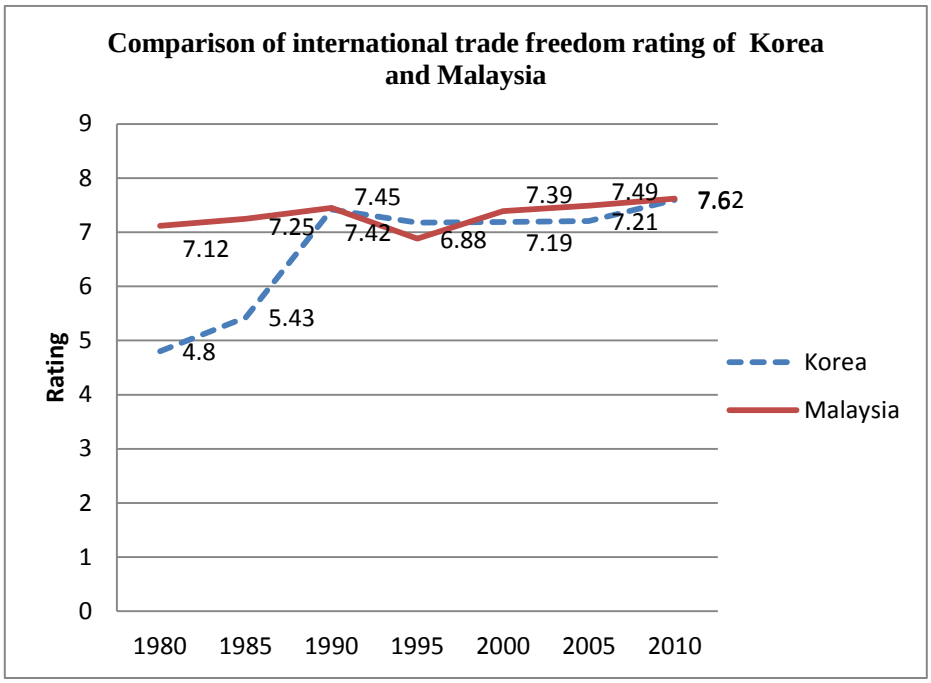
Thus, it is expected that the protection policy to ethnic majority in Malaysia to be continued. The nationalism and internal political pressure would be remained as barrier in promoting free economic system in Malaysia. Forming of FTA with other countries has helped to open up the trade market and FDI; however, the Bumiputra policy is expected to remain a "non-negotiable" issue in the FTA system.

Figure 5.14 Economic freedom rating of Korea and Malaysia



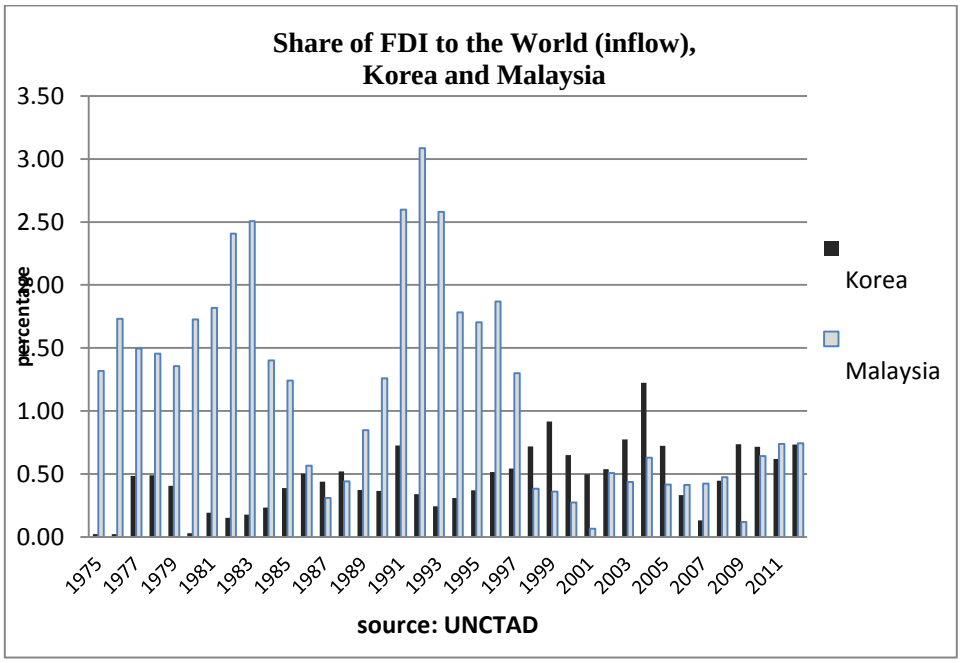
Source: Economic Freedom of the World 2013 Annual Report

Figure 5.15 Comparison of international trade freedom rating of Korea and Malaysia



Source: Economic Freedom of the World 2013 Annual Report

Figure 5.16 Share of FDI to the World (inflow), Korea and Malaysia



As shown in the Figure 5.15, Korea's trade openness also has greatly improved since 1990 and reached a similar level with Malaysia in 2010. In term of FDI openness, Malaysia's achievements have been quite poor compared to Korea. In the past, Malaysia attracted a great deal of FDI from world MNCs; however, Malaysia's attractiveness has been deteriorating, particularly since 1997. It is not a good sign as Malaysia is a FDI-driven economy. Over the past few years, Korea has received a similar share of FDI. It is evidenced in the Figure 5.16 which indicates the share of FDI in Korea and Malaysia to the world was similar from year 2010-2012. Korea, as a modernized state, is continuing to promote the values of openness and free competition not only culturally but also

as policy core values. Thus, it is expected that Korea's level of openness will further improve and create higher growth. While Malaysia is somewhat liberalized currently, the advent of conservatism in Malaysian politic is worrisome. The changing of values towards liberalizations already has exerted impacts on the recent policy direction and economic achievement. In Malaysia, as a multi-ethnic country with a dominant race-based ideology and Islam-first approach, the liberalization process may further slow or even reverse. Certainly, potential future economic growth will be undermined if conservatism continues to gain traction in Malaysia politics and society.

CHAPTER 6: CONCLUSION

Cultural values are highly related to national competitiveness as revealed in this study. Based on the analysis across countries, Individualism, Uncertainty Avoidance and Openness are highly correlated with national competitiveness. Among the cultural dimensions, Individualism appears to be the most important cultural factor, with the highest correlation, for determining innovation, trade openness, FDI inflow, and GDP per capita. Uncertainty Avoidance has a strong positive correlation with R&D investment and educational performance. Openness is also very important for international trade and FDI attractiveness.

This study found that most of the advanced economies in the world rank highly on the Individualism Index, Uncertainty Avoidance Index, and Openness Index. The dynamic North East Asian economies (e.g., China, Japan, and Korea) rank high on Uncertainty Avoidance, but low in both Individualism and Openness. Their Uncertainty Avoidance cultures have helped these so-called "Asian dragons" to grow, but their low degree of Individualism and Openness has limited their competitive achievement levels. Western countries, which are more individualist and culturally open, perform better in FDI inflow, trade openness, as well as in innovation. The Confucian cultural zone countries; such as China, Japan and Korea which are collectivist societies, are less open, and perform poorer in trade openness and FDI inflows. This suggests that if Confucian cultural zone countries want to be more prosperous, they need to be

more open and adopt some of the more positive values associated with individualism, particularly merit-based and competition-based values.

One important finding of this study was the contradictory position of Japan and South Korea on the Individualism-Innovation relationship test, indicating that Japan and South Korea are high in both Collectivism and innovation. This indicates that other cultural factor may have contributed to Japan and Korea's innovativeness, or that collectivism may have positive outcomes under the capitalist systems of Japan and Korea. To explain this, this paper through the multiple-regression analysis showed that Uncertainty Avoidance was positively related with the innovation index.

Uncertainty Avoidance contributed to R&D investment which leads innovation. This means the culture of Uncertainty Avoidance has helped collectivist cultures to grow. Upon further investigation, the Korea's case study revealed that Korean collectivist values and uncertainty avoidant attitudes played a significant role in the process of industrialization, particularly during the early development stages. Collectivist values emphasizing harmony, team spirit, seniority, loyalty, and patriotism, helped Korean firms to grow in 1960s – 1980s.

The powerful collectivist management culture and leadership styles helped Korea to grow rapidly from one of the least developed countries to a powerful economy within a short period of time. Nonetheless, when the Korean economy entered the innovation driven stage, Korea began to face innovation growth problems. Collectivism had helped to form a solid foundation, however, it limited innovation. Traditional values, such as group harmony, hierarchy, seniority, and

life time employment, became the obstacles to innovation and prevented many Korean firms from advancing further. The rigidity of the collectivist culture, which restricts the free flow of communication, started to undermine the growth of Korean innovation in mid 1990s. Consequently, Korean firms were forced to reform themselves, particularly in the wake of the 1997 financial crisis.

To enhance their competitiveness and to compete with their global rivals in the technology industries, Korean innovative firms and organizations begun to replace their traditional management cultures with global standard management systems. One such reform included the gradual replacement of the seniority-based reward system with a performance-based system. Although seniority-based reward systems are still commonly found in Korean organizations, performance-based systems are becoming increasingly prevalent. This suggests that Korea is undergoing cultural change. While Korea has had a strong collectivist culture in the past, it is gradually adopting more individualist values. As such, Koreans are increasingly recognizing the value of competition and creativity. Dominance of collectivist values in the management such as seniority, hierarchy and harmony have been weakened. Nonetheless, the issue of ownership and management remain a critical issue for Korean *chaebols* management.

Uncertainty Avoidance is another significant aspect of culture influencing nation competitiveness and economic development. This study found that countries with fewer resources tend to be high in Uncertainty Avoidance, but have successful innovation driven industries. Germany, Switzerland, Norway, Japan, and Korea all rank high on Uncertainty Avoidance and are economically

prosperous. This indicates that Uncertainty Avoidance plays a significant role in enhancing a country's competitiveness.

The high Uncertainty Avoidance of Korea has contributed to the attributes of hard work, perseverance, discipline, frugality, orderliness, long-term orientation, and the sense of urgency. As a culture with high levels of anxiety, Koreans tend to be more future-oriented and emphasize planning in their lives. Unlike Malaysians, who tend to accept each day as it comes, Koreans always plan and anticipate for their future needs. Due to their general sense of anxiety for the future, Koreans tend to save more money and invest more. Furthermore, the idea that "time is money" is more pervasive throughout high Uncertainty Avoidance cultures. The Korean culture is also characterized as a "palli-palli" (translating "quick and quick") culture. This "fast" culture enables Koreans to work fast in a highly competitive technology world.

For a "relaxed" culture like Malaysia, targeting a fast changing technology industry seems to be a poor policy choice in the Malaysian context. Malaysia seems to lack the "cultural capacity" to pursue the same economic development models as Korea. Malay society emphasizes religion, particularly Islam, as an integral part of the culture. Islamic ethical codes seem to conflict with the capitalist spirit, discouraging the thirst for profits. Under the Malay's Islamic value system, being profit-oriented or money-focused is less emphasized. Malays are taught to strike a balance between wealth and *budi* (virtues) for a harmonious life. Modesty, family, and love are considered desirable values in Malay society, and the pursuit of economic gains is regarded as less important.

In addition, as a resource-rich country, Malaysian people do not need to work that hard to survive. Malaysian culture shuns being busy, stressed, or feeling tense over work. Therefore, the technology industry, which can create a lot stressful work, may be an inappropriate match for the Malay culture. Consequently, given the lack of capitalist spirit, the failure of most industrialization models comes as no real surprise. In fact, the Malaysian leadership realized the need to learn the industrialist spirit from Korea and Japan under the Look East Policy. However, creating a team-spirited industrial culture will not be possible without more extensive cultural changes taking place.

Malaysian culture is slightly more open than Korean culture, but lacks many of the positive collectivist values of Korea and instead has a race-based form of collectivism. Despite being a multi-cultural country, Malaysia's collectivism is based on ethnic group. The main objectives of the race-based development policies are to promote income equality, stability and the harmony of the country. However, these policies have inadvertently limited overall competitive growth. Various studies have shown that the ethnic-based economic policy has caused inefficiencies in resource allocation, and contribute to the brain drain problem, and poor human capital. Under Mahathir's leadership, the Heavy Industry Plan was implemented by the government to modernize the majority ethnic Malays. However, there was a problem that the target of the policy was the prosperity of an ethnic group and not the achievement of the industry. Despite a lack experience and qualifications, Bumiputra/Malay executives were recruited by the government to manage heavy industry firms. Due to the inexperience of the

executives and their lack of preparation for assuming such enormous responsibility, heavy financial losses were incurred. And while the skill and knowledge of the Malays have certainly improved, they have come at a heavy cost. Extended protectionism and other supports have created a "protection mentality" which discouraged Bumiputra firms from learning how to compete in a free open market without government protection. The most prominent example of this "protection mentality" was the government linked local automotive company, PROTON Automobiles, which still depends on government protection policies to survive despite 30 years of operations.

Protectionism and conservatism are cultural barriers to national competitiveness that must be removed if countries are to move forward in their economic development. Malaysia, as an export and FDI oriented economy, should aim for greater openness to attract more FDI and focus on international export markets. Korea, as an innovation-driven economy, must strive for more individualism as this is the key to achieving greater levels of innovation. Furthermore, Korea should aim to be more open so as to attract more foreign investment. Korean protectionism gave local firms a helping hand in the early phases of industrialization, but in today's global economy such protectionism paradoxically harms local businesses.

In this highly competitive global economy, foreign investors look for friendly business environments and, when they don't find them, they can always look for better alternatives. Open economies will always attract more and better business opportunities. As shown in this study, all of the richest economies with

the highest standards of living (e.g. Switzerland, Norway, Finland, and the Netherlands) maintain open economies which attract international competition and investment.

It is expected that the income gap between Korea and Malaysia will continue to widen if current trends do not change. Korea is becoming more open, more performance-oriented, and high in uncertainty avoidance, while Malaysia remains a collectivist society that is low in uncertainty avoidance and high in protectionism. Natural resources, generous government subsidies, protectionism of local industries have led to dependent mentality among Malaysian companies.

While reform is absolutely essential, for a culture that has a large power distance, such reforms will not come easily and will depend entirely on the political will of the nation's leadership to make a stand for the sake of the country's future. Being a prosperous economy in a capitalist global economic system demands an equally capitalist spirit for achieving desired results. Therefore, cultural change should be pursued by enhancing systems that embrace the values of competition, merit, and openness. These values will play a significant role in creating the prosperity of economies. The positive values of one's own culture should be maintained, but accepting positive values from other cultures can help to enhance one's economy and competitiveness.

6.1 Limitations and Further Study

There is a room for improvement of this study, particularly in terms of cultural variable data source. Correlation tests between cultural values and competitiveness require a large data based on a number of countries. The World Values Survey (WVS) data was only available option among the raw statistical cultural data in the online database for public use. Although more data options are available, most are either outdated or aimed at an organization level (e.g. the IBM survey by Hofstede 2001). Thus, the World Values Survey was the only real choice of datasets for conducting country-level cultural analysis.

The WVS has conducted six surveys between 1981 and 2014 which is one of the most widely used cross-national time series surveys, covering almost 100 societies. Topics covered by the survey questions include democratic values, tolerance of foreigners and other races, gender equality, importance of religion, attitudes towards work, family, national identity, and subjective well-being. In total, the WVS provides more than 200 survey value questions. However, for the purpose of this study, the choice of survey questions was limited because this study is focused on the dimensions of Individualism, Uncertainty Avoidance, and Openness; whereas the scope of WVS is considerably broader.

Due to the limited number of WVS survey questions related to this topic, the proxy variables for measuring Individualism, Uncertainty Avoidance, and Openness were necessarily limited to few variables, and may not necessarily be the most appropriate measures for each of the dimensions. Furthermore, the

survey data itself has disadvantages in that it can be affected by unrepresentative samples, poor survey questions, or false answers given by respondents. Therefore, case studies of specific countries are necessary to offset the limitations of quantitative study.

Another weakness of this study is the different time frame of quantitative versus qualitative components. The cross-national statistical analysis focused on the years 2005 – 2009; however, the case studies of Korea and Malaysia covered a significantly larger period, 1970s – 2000s. The 2005 – 2009 dataset was used because data for Malaysia was not available until 2005. In addition, the WVS survey questions are slightly different at each data collection point; therefore it is not always possible to use the same survey items for the measurement of each cultural dimension across different periods. Furthermore, for the specific case studies of South Korea and Malaysia, the analysis was primarily focused on the 1990s – 2000s period; earlier periods were used only to provide background context. Correlations tests, as used in the quantitative analysis, also have limitations. Correlation testing only suggests to the probability of a relationship between two variables, but it cannot prove that one variable causes a change in another variable. In other words, correlation does not show causation. Other variables might play a role. Therefore, the case studies in the second part of this paper are important in providing support for the outcomes of the correlation testing. Nevertheless, a more in-depth analysis of the quantitative relationship between culture and competitiveness is needed.

Due to the limitation of existing statistical cultural datasets, developing a new survey at smaller level of unit analysis would help in future studies. Different approaches to the study culture may provide a better picture, for instance, through naturalistic observation by case studies, or content analysis with a specific focus on Korea and Malaysia.

Besides cross-national levels of analysis, research at an organizational level might provide a better explanation of the relationship between cultural values and competitiveness. For instance, case studies of Hyundai Motors and Proton Automobiles would provide a good comparison of how the difference in organizational culture has affected the management performance of Hyundai and Proton. By studying at a company level, data would be easier to obtain compared to nation or cross-national level data.

For further study, Moon and Choi's (2001) OUI model and Moon's (2013) ABCD model could be applied where more extensive value data is available, either quantitatively or qualitatively. It is important to have more detailed studies of each relationship tested in this study with further quantitative analysis and additional case studies. Both the OUI and ABCD models, introduced by Moon (2004, 2013), are useful in exploring the role of cultural factors in Korea's development. The ABCD model identifies four key factors in Korea's success; namely agility, benchmarking, convergence, and dedication. Based on the ABCD model, Korean economy can be described as an economy of speed, learning, diversity, and of hard work. Economy of speed and economy of hard work are highly related to cultural factors. Therefore, applying the ABCD model might

help to further understand the role of cultural factors in Korea's success. It might similarly be applied to the case of Malaysia for comparison purposes.

To conclude, there is more room for further investigation and for improvements of this study. This dissertation only provides an overview of the relationship between culture and the economy, with a specific focus on Korea and Malaysia. More detailed studies are needed at different levels of unit analysis and by using different research methodology to further understand the relationship between culture and the economy. Such studies should also need reliable data to ensure the validity of the arguments.

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Abstract in Korean

국문 초록

본 논문은 문화적 가치와 국가경쟁력간의 관계를 연구하고자 작성되었다. 이 글은 크게 두 부분으로 나뉘는데 첫 번째 파트에서는 통계적 분석을, 두 번째 파트에서는 한국과 말레이시아의 사례를 다루고 있다. 정량적 분석으로 많은 국가들을 상대로 조사한 자료를 바탕으로 문화와 경쟁력 간의 관계를 결정하기 위한 상호관계분석을 실시하였다. 심층적인 정성적 분석을 위해서는 한국과 말레이시아의 사례를 연구하였다. 정리하자면 본 논문은 첫째, 경제 및 문화 관련 문헌을 심층적으로 분석하였고 둘째, 다양한 문화이론모델에 대해 다루었으며 셋째, 최신 실증적 연구결과, 정량적관계분석, 한국과 말레이시아간의 사례 등을 다루고 나서 최종적으로 결론을 도출하였다.

본 연구를 위해 국가경쟁력은 하나의 지표로 정의되지 않는다. 국가경쟁력은 다양한 지표가 동원되어 형성되는데 예를 들면, 혁신, 교육, 기술, R&D, 무역개방성, 외국인직접투자(FDI) 등이다. 본 연구는 문화적 가치가 경쟁력과 밀접한 관계가 있음을 보여준다. 상관관계테스트에 따르면 개인주의와 혁신은 서로 긍정적인 영향을 준다. 이와 유사하게 불확실성 회피가 학업성취도와 R&D 지출비용 모두에 있어 긍정적인 영향을 준다. 개방적인 문화 역시 FDI 유치와 무역개방성에 긍정적인 영향을 준다. 이 세 가지 점은 1 인당 국내 총 생산량과 밀접한 관계가 있다. 이 연구는 또한 선진국이 개인주의, 불확실성 회피와 개방성에 있어서 높은 수치를 보여줌을 뒷받침 해준다.

한국 및 말레이시아의 사례연구 또한 이 연구의 정량적 결과를 뒷받침한다. 지난 몇 십 년에 걸친 한국의 경제성장과정을 살펴보면 집단주의에서 벗어나 서서히 개인주의로 발돋움함을 알 수 있다. 아직도 한국에는 집단적인 문화가 강하지만 개인주의의 일부 특징을 선택적으로 도입함으로써 혁신과 경쟁력을 제고할 수 있었다. 한국의 혁신성과 이후 경제성장에 영향을 끼친 개인주의적 가치는 임원들에 대한 경쟁적 성과보상제, 기업경영과 경제정책수립에 대한 보다 진보적인 접근법의 도입을 포함하고 있다. 한국의 또 다른 문화적 힘은 불확실성의 회피다. 한국의 '빨리빨리문화' 와 미래중심적 태도는 R&D 와 교육에 대한 깊은 관심으로 이어졌다. 1997 년 외환위기는 불확실성회피지수(UAI)를 상승시켰고 한국의 기업경영수준을 세계적 수준으로 끌어올렸다.

한국과 달리 말레이시아는 불확실성에 대해 보다 더 관대하고 외국으로부터의 영향에 대해서도 개방적이다. 그러나 한국이 국가적 집단주의를 강조한다면 말레이시아는 인종적 집단주의를 선호한다. 이 인종적 집단주의, 보호주의, 낮은 불확실성 회피는 말레이시아가 경쟁력을 제고하는데 장애물이 되었다. 특히 혁신이 바탕이 되어야 하는 산업과 글로벌비즈니스 분야에서 더욱 그러했다. 인종적 집단주의는 말레이시아의 개방성을 제한했다. 혁신적 성장에 있어서 불확실성 회피율이 낮은 문화로 인해 '빨리빨리' 마인드가 발전하지 못했다. 열대자원이 풍부한 말레이시아는 느긋한 국민성을 가지고 있다. 빠르게 변화하는 첨단산업은 이러한 말레이시아 문화와 잘 맞지 않았다.

정리해 보면 한국은 개방적이고 성과중심적이며 불확실성에 대해 회피한다. 반면, 말레이시아는 인종을 중심으로 하는 집단주의를 강조하고 불확실성 회피에 대해 낮은 수치를 보였다. 말레이시아가 혁신 중심의 경제를 이룩하려면 개혁이 불가피한 상황에서 권력거리가 뿌리깊은

말레이시아 사회에서는 그러한 개혁이 쉽지 않을 것이며 국가를 미래로 이끌 정치적 개혁이 뒷받침되어야 할 것이다. 부유한 자본주의 경제를 이룩하려면 결과중심의 자본주의적 마인드가 필요하다. 따라서 경쟁, 성과, 개방성의 가치 즉, 혁신적 선진국의 경제발전에 있어서 중요한 역할을 했던 이러한 가치들을 포용함으로써 기존 문화에 대한 변화를 추구해야 한다.

國際學博士學位論文

The Relationship between Cultural Values and National Competitiveness:

General Pattern and Specific Country Studies of South Korea and Malaysia

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서울大學校 國際大學院

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Abstract

The Relationship between Cultural Values and National Competitiveness:

General Pattern and Specific Country Studies of South Korea and Malaysia

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The transformative success of East Asian economies (e.g. Hong Kong, Korea and Taiwan), from agrarian to advanced economies within a short period of time, has fascinated academicians as well as practitioners. While theories abound as to the cause of these transformations, some studies focus on the role of cultural factors. The relationship between culture and the growth of East Asian economies has been studied extensively, but most studies have concentrated on the role of Confucianism. Instead of focusing on the role of Confucianism, this study undertakes a more in-depth examination of the East Asian economic phenomenon by employing a cultural model in which cultural values are categorized according to three dimensions; namely, Individualism-Collectivism, Uncertainty Avoidance, and Openness. The correlation between sub-components of culture and competitiveness was examined across many countries, followed by specific

country studies of South Korea and Malaysia. Korea was selected as being representative of an advanced innovative East Asian economy; while Malaysia was chosen to represent a developing economy which tried to imitate the successes of Japan and Korea. Specific case studies are used for illustration purposes and to overcome some of the limitations of quantitative research.

This dissertation starts with an outline of the research context, objectives, and the significance of the study. This is followed by an extensive review of the economic and cultural literature, a discussion of various cultural theoretical models, and a review of recent empirical findings. The study's research methodologies are explained in detail with key terms defined in terms of the research framework. For the purposes of this study, national competitiveness has not been defined by any single index, but is represented by a range of competitiveness indicators, such as innovation, education, technology, trade openness, and FDI inflows. Correlation analysis is conducted to determine the relationship between culture and competitiveness based on data from a range of countries, and then specific country studies of Korea and Malaysia are undertaken.

This study's findings suggest that cultural values are highly correlated with competitiveness. Based on the correlation test, Individualism was found to have a strong positive relationship with innovation. Similarly, Uncertainty Avoidance was found to have a positive relationship with both academic performance and R&D expenditure. A culture of openness also has a positive relationship with Foreign Direct Investment (FDI) attractiveness and trade openness. All of these

three dimensions have a strong positive relationship with Gross Domestic Product (GDP) per capita. The study also revealed that many of the most prosperous countries, such as Finland, Germany, Netherland, Norway, Sweden and Switzerland rank highly in Individualism, Uncertainty-Avoidance, and Openness. These countries enjoy a high rate innovation, excellent educational achievements, large expenditure of R&D, and high degree of international business openness.. Other cultural blocs, such as Latin America, the Middle East, and South East Asia rank low in Uncertainty Avoidance. These countries also rank relatively low in terms of technology innovation, R&D expenditure and academic performance. Confucian bloc countries, such as China, Japan and Korea rank high in Uncertainty Avoidance and Collectivism, but very low in Openness. These countries are yet to achieve the innovation levels of the West, and are relatively low in terms of FDI attractiveness and trade openness. Thus, the promotion of Individualism and Openness are key cultural factors for enhancing competitiveness and growth in East Asia. This study also found that Individualism was the most influential cultural factor for the promotion of innovation, trade openness, FDI openness, and GDP per capita. Uncertainty Avoidance was also found to be strongly related to national educational performance.

The specific country studies of Korea and Malaysia also supported the quantitative findings of this study. By looking at the economic development process of Korea over the past few decades, this paper demonstrates that Korea has gradually begun to shift away its collectivist past and has slowly begun to

embrace individualism. Although Korea certainly has at its core a strong collectivist culture, its selective adoption of certain aspects of Individualism has enabled Korea to enhance its innovation and competitiveness. Individualist values that have contributed to Korea's innovativeness and subsequent prosperity include the recognition of merit and competitive reward systems for executives and the adoption of more liberal approaches to corporate management. Uncertainty avoidance is another cultural strength of Korea. Korea's higher sense of urgency and future-oriented attitudes translate into a deep concern for R&D and education. The 1997 Asian financial crisis drove up Korea's Uncertainty-Avoidance Index, and forced Korea to further liberalize its corporate governance to catch-up to international standards.

In this paper, comparisons are made between Korea and another collectivist society, Malaysia. Unlike Korea, Malaysia is relatively more tolerant of uncertainty and is more open to foreign input. However, the racial collectivism, protectionism, and low uncertainty-avoidance present a barrier to enhancing Malaysia's competitiveness; particularly in the innovation-oriented industries and international business arena. Race-based collectivism limits the openness of Malaysia; the low merit-based systems of governance and Uncertainty-Avoidance culture reduce the sense of urgency in pursuing innovation growth. In addition, as a tropical resource-rich country, Malaysia has relatively a more relaxed culture. The nature of the fast changing hi-tech industry seems not to be well matched to the local culture. Overall, while Korea has become more open and more merit-oriented while highly avoidant of Uncertainty Avoidance,

Malaysia has continued to reinforce its race-based form of collectivism, while still being low in Uncertainty Avoidance. And while reforms are absolutely essential if Malaysia is ever to become an innovation-driven economy in the future, for a culture with such a large culturally ingrained sense of power distance, such reforms will not come easily and certainly not without the political will to take the nation into the future. A prosperous capitalist economy demands a result-orientated capitalist philosophy. Thus, cultural change should be pursued by embracing values of competition, merit, and openness; values which have played a significant role in the prosperity of most innovative advanced economies.

Keywords

Cultural values, national competitiveness, South Korea, Malaysia

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CHAPTER 1: INTRODUCTION

The importance of cultural factors in the promotion of industrialization has been acknowledged by academicians over the past century. From Weber (1905), McClellan (1961), Huntington and Harrison (2000) to Hofstede (2001), scholars have consistently demonstrated that cultural practices are related to economic performance. And while other factors have most certainly played a role, no explanation of economic achievement is complete without an acknowledgement of the importance of culture. However, economists who emphasize the importance of economic systems tend to disagree with the cultural argument. Economists argue that individuals, regardless of their cultural and social background, are rational and self-interested (Loy 2008, p.157). In other words, cultural factor are not significant in explaining a nation's economic development. To the economist, what is more important is the market system. Nonetheless, since Asia's four advanced economies (Hong Kong, Korea, Taiwan and Singapore) had successfully industrialized within a short period of time, academicians are interested in understanding the role of cultural values in the grown of these nations (Hofstede 1988; Tu 1996). This question is particularly relevant in light of many other regional developing economies remaining stuck-in-the-middle income trap.

The Asian economies, such as China, Japan, Korea, Singapore and Taiwan, share similar values of hardworking cultures. Today Japan, Korea, and Singapore are considered high-income countries, and China is rapidly moving in the same

direction to become an advanced economy. While some do doubt China's ability to become an advanced economy in the future, China's economy is expected to continue to grow stronger.

However, many other developing countries remain stuck-in-the-middle income trap. A study by the Asian Development Bank (2012) suggested that in 2010, 35 out of the 52 middle-income countries around the world were unable to escape from the middle income trap (Time 12 March 2013). This middle income trap was more acutely felt in countries from Latin America and South East Asia.

Malaysia is one such middle income trapped country, sandwiched between low-wage economies and innovative advance economies. Little is known about why so few countries manage to reach high-income status or why the most successful economies have tended to come from similar cultural backgrounds. For many of developing economies, it is relatively easy to move from *least developed* to *developing*, but breaking out of that middle income trap and climbing any further up the economic ladder has proved difficult. But some recent successes breaking out of the middle income trap have been had in the East Asian region, particularly Korea, Taiwan, and Singapore. Their successes, particularly Korea's, has stimulated interest among other developing countries which would want to mimic that same transformative success. Malaysia is one such country that has been very keen to learn the secrets of becoming an innovation driven economy from Japan and Korea.

As a resource rich country, Malaysia was relatively richer than Korea before 1980. However, Korea started to catch-up to Malaysia in early 1980s, and

continued to move forward rapidly, surpassing Malaysia in the mid-1980s. This caught the attention of the Malaysia government that wanted to understand the development model of Korea. Due to the similarities in the development models of Japan and Korea, Malaysia's former Prime Minister, Mahathir bin Mohamad, thought that something could be learned from these two countries and consequently initiated the "Look East Policy" from mid-1980s. The aim of the "Look East Policy" was to look Japan and Korea as the preferred sources for industry development experience, technology, and management systems. Mahathir realized the need to develop technology intensive industries; and therefore some Japanese and Korean industry development models were hastily implemented in Malaysia. In particular, Malaysian government sought to replicate the successes of the car industry and steelmaking industry. But, after almost 30 years of development, Malaysia has yet to achieve the successes of Korea. Malaysia's national industry projects, particularly the steelmaking and automotive industry, have not only failed to become export-oriented industries, but have run at a financial loss for many years.

However, Korea's development model is itself an imitation of Japan's industrial development model of the 1960s. Korea quickly duplicated Japan's success to become Japan's top rival in technology industries. Korea's steel industry, ship-making, automobile, and electronics industries have achieved the world class status in just four decades. Korea's new rival in these industries, China, has been also growing rapidly in these sectors over recent years. Chinese steelmakers, car makers and even electronic product makers have started to put

pressure on Korean industrialists. Coincidently, China, Japan and Korea are all from a similar cultural bloc and this may be behind the success of their technology development models. Malaysia belongs to different cultural bloc and this might explain why Malaysia has been unable to perform effectively with a similar industry development model. While there certainly are a number of factors contributing to the different outcomes of Korea's versus Malaysia's economic development models, this study intends to investigate the issue from the perspective of cultural factors.

While this paper focuses on South Korea as an example of a successfully reformed East Asian economy, the modernization of Japan's and Taiwan's economies tell a similar story. Under the ideology of nationalism, the collective energies of the Japanese, Korean, and Taiwanese people were mobilized to commit themselves to industrial work and to changing long held cultural norms (Kim and Park 2003). Their stories tell us about the role of cultural factors in these countries' economic modernization. A Korean intellectual Ham Sok Hon (1961, p. 31 cited Kim 2004) reported, "Historically, the fundamental cause of the Korean people's suffering was due mainly to the weakness of their national character and the only way to change the national character was to have a people revolution." According to Ham, the revolution of the national spirit was necessary to build a whole new Korea. Rather than looking for solutions in specific problems area of the economy, Ham called for an all-out national awakening movement. Ham (cited Kim 2004) states that:

> …Men are the servants of a systems, of a "value system" framework, because they are social beings…although men create the social framework, it also in turn create men… if anyone desires to form newborn babies into a new people, one must first of all change the whole framework of society (p.31)…

The call for a people's revolution to rebuild the national spirit was incorporated into the Park Chung Hee's reform agenda. The "Human revolution" campaign of Park has significantly impacted Korean's modernization process. When Park Chung Hee assumed the mantle of national leader of Korea in the early 1960s, he emphasized the imperative to transform the Korean mentality by setting the culture toward the industrialization path. Park Chung Hee (1970, p. viii) stated:

> …the fault does not always lie with the institution itself; it lies rather with the individuals who comprise and operate the institution…in every common destiny the basic unit are the individuals. Consequently, no matter how much the institution is modified and its apparatus reorganized, it will be the same story all over again as long as the individual who operate the system remain unchanged. It is for this reason that we call for "human revolution"…

As to whether Korean culture has played a significant role in helping Korea to succeed against all odds, Chung Ju-yong, the Hyundai Group's founder, responded that:

> …the Korean people are diligent, honest, responsible, and intelligent. They are enthusiastic and committed when properly motivated. The secret success of Hyundai is because of our people. Our people are the greatest in the world; they succeed wherever they go…An economy based on human endeavor will continue because human creativity is limitless. This is the lesson of Korea and the lesson of Hyundai (Chung Ju Yong cited Steers 1999, p. 231)…

Chung believed that successful entrepreneurial traits could be developed in any culture assuming that a genuine commitment to accomplish great things existed. Chung elaborates, "any business or, for that matter, any culture can succeed if its leader can instill these characteristic in their people" (cited Steers 1999, p. 231). Chung attributed Korea's success to a culture of five thousand years of accumulated wisdom and knowledge. Several studies also argued that economic political system are embedded in system of common values, which may form the way in which organizations; institutions and the political system are organized (Inglehart 1997; Hofstede 2001). Therefore, this study intends to examine the relationship between cultural values and national competitiveness, with a specific focus on South Korea and Malaysia, in order to better understand the role of cultural factors.

1.1 Objectives of This Study

The objective of this study is to investigate the role of cultural values in influencing a nation's development, particularly competitiveness. This study aims to examine the relationship between national competitiveness and other cultural values by conducting statistical tests across many countries, and to support this general pattern with specific country studies of South Korea and Malaysia. Not only is the general pattern of economic cultural relationships investigated, but also is a more in-depth investigation of the two identified countries undertaken. Note that the objective of this paper is not to argue that cultural factors act alone without other supporting political economic conditions, but to identify which cultural values have a significant relationship with national competitiveness, and to describe how the values affect national competitiveness.

Another objective of this paper is to empirically assess the role of cultural factors in East Asia's prosperity, particularly in the specific country studies of Korea and Malaysia. Although many scholars have attempted to link Asia's economic growth with cultural values, most theories have been restricted to the Confucian-capitalism hypothesis. This debate has remained a purely academic one with little empirical research. This study forgoes an investigation of Confucian or Asian values to use a cultural dimension model which is more comprehensive and wide-ranging, and which allows for other cultural blocs to be analyzed as well. Hofstede's cultural model is the most widely used and

commonly cited national framework of culture. Moon and Choi's (2001) OUI[1] cultural model highlights the importance of Individualism, Uncertainty Avoidance, and Openness. This study uses a model similar to the OUI, but with modifications made to the measurement of each dimension with a different data set. The overall objectives of this study are as follows:

i. To study the general pattern of relationships between cultural values and national competitiveness,

ii. To investigate how cultural factors explain the differences in achievement between Korea and Malaysia, despite Malaysia having tried to learn from the development experiences of Korea and Japan since the mid-1980s,

iii. Provide a comprehensive investigation of the links between cultural factors and competitiveness by testing correlations across many countries, including specific country studies of Korea and Malaysia.

1.2 Significance of This Study and Its Uniqueness.

To investigate the link between cultural values and the economy, a number of existing studies (e.g. McClellan 1961; Hofstede 2001; Inglehart 2005; House, Hanges, Javidan, Dorfman and Gupta 2004) had used vast whole country samples to conduct correlation analysis across many countries. These studies suggested important relationships between economic competitiveness and

[1] OUI stands for Openness, Uncertainty Avoidance and Individualism

cultural values, but did not explain the links in detail. This study, however, not only aims to identify the general pattern of relationships, but also to conduct an in-depth study through qualitative research methods through a comparative study of two countries, Malaysia and South Korea. With specific case studies of Korea and Malaysia, this study explains why Malaysia has been unable to move up the industrialization ladder to become an innovative advanced economy from the cultural perspective. This study investigates how cultural differences have resulted in different levels of achievement difference for both countries, and finds that an industrialist spirit is a prerequisite for a development model to work effectively. Simply mimicking the development model of another nation or investing money does not guarantee a success without cultural support.

In comparison to other studies, there are many studies that discuss the relationship between Asian values, Confucianism, and East Asian economic growth (e.g. Hofstede and Bond 1988; Kim 1994; Tu 1996), which aim to explain why the four Asian economic giants, Taiwan, South Korea, Hong Kong, and Singapore, had successfully transformed themselves into industrialized economies within a short period of time. Nonetheless, the Confucianism-capitalism argument and the role of Asian values have received a lot of criticism too. This study does not investigate the relationship between culture and the Asian economy from the Confucian perspective, but uses the cultural dimensions model, which is far more comprehensive. Furthermore, Malaysia and Korea are located in different cultural zones, thus the concept of "Asian values" is too broad and meaningless in reality. Existing studies have often simplified Asian

values to Confucian values. However, the South East Asian Austronesia peoples, of which the Malays are included, do not belong to the Sinic-Confucian group. Thus, this study takes a more comprehensive approach by comparing two different cultural zone countries (i.e. Confucian Asian vs. Islamic South East Asian) in East Asia.

Another difference between this and many other studies is the research methodology. To make a more practical comparison between South Korea and Malaysia, this study uses a number of dimensions from Hofstede's cultural dimension model and adds other dimensions derived from Moon and Choi's (2001) OUI model. Hofstede's original cultural model comprised five dimensions (i.e. Individualism-Collectivism, Uncertainty Avoidance, Power Distance, Masculinity-Femininity, and Long term vs. Short term Orientation). However, this study uses only two dimensions from Hofstede's model; Individualism, and Uncertainty Avoidance. The Openness dimension, which is derived from Moon and Choi (2001), was added as a third dimension to this study's model. Although this study uses the same dimensions as suggested by Moon and Choi (2001), this study uses a different data set and measurement for each dimension. Due to the differences in data sets, the definition and sub-values for each cultural dimension are necessarily different from Moon and Choi (2001). In Moon and Choi's (2001) OUI model studies, the data for the cultural variables were obtained from the IPS National Competitiveness report, which are mostly statistical hard data. However in this study, the data for the cultural variables were obtained from the World Values Survey. In addition, Moon and Choi (2001) used a single competitiveness

index and GDP per capita as the performance variable; whereas this study tests a few areas of competitiveness with cultures. The measures of competitiveness tested in this study include the innovation index, R&D investment, academic performance, and FDI inflow. In addition, the relationship of GDP per capita with cultures was also tested. In comparing to existing studies, Moon and Choi (2001) provided a more comprehensive study by testing the cultural relationship with a single performance index (e.g. the Individualism-National competitiveness index). However, this study provides a more in-depth examination of the linkage between specific competitiveness areas and culture, for example, Individualism-Innovation and Openness-FDI inflow. In addition to the general statistical test, the theoretical findings of the quantitative part of the study have been applied to the case studies of Korea and Malaysia.

CHAPTER 2: LITERATURE REVIEW

Among scholars supporting the importance of cultural factors in economic progress, Max Weber, a Germany sociologist and political economist, is one of the earliest sociologists to relate economic development with cultural variable. His view on the relationship between Protestantism and capitalism development has profoundly influenced economic cultural studies. In his essay- *The Protestant Ethic and the Spirit of Capitalism*, which was published in 1905, he argued that the development of in Western Europe is attributed to Protestantism.

According to Weber, one of the universal tendencies that Christians had historically fought against was the desire to profit. Protestantism produces a new kind of businessman, one who aimed to live and work in a certain way, concerning for effective working practices and material benefit. Weber (1905) also noted that societies having more Protestants were those that have a more developed capitalist economy. He demonstrated his views by using Western Europe and Eastern Europe as an example. He argued that Western Europe which is dominated by Protestantism is more capitalistic compared to Eastern Europe that is dominated by the Catholics. Protestantism spirits that favors the rational pursuit of economic gain encourages entrepreneurship and link to the growth of industrialization. Argument of Max Weber has generated keen interest among academician to study economic cultural relationship.

To explain the cultural factors that differentiate those nations which have grown more rapidly from those which have grown more slowly, McClellan (1961) argued that the achievement motivation degree of a society plays a significant role. Studies by McClelland (1961, p. 201) showed that high achievement oriented society performed stronger economic growth. By analyzing the values taught in children's story books, McClelland (1961) calculated the number of achievement characteristics per story for each country and used it as a measurement of achievement orientation index in a society. McClelland (1961) suggested that if the Achievement level is high, the society will most probably has more people who behave like entrepreneurs, acting to produce more than they can consume which drives wealth growth (p.65).

The book by Harrison (2000) entitled *Underdevelopment is a State of Mind-The Latin American Case*, demonstrates that in most Latin American countries, culture has been a primary obstacle to development. Harrison's analysis generated a storm of objection from economists, experts on Latin America, and intellectuals in Latin America. In the following years, however, people in all these groups began to see elements of validity in his argument (Huntington 2000). Harrison (2000) argued that investigating the wealth of a nation without looking at the cultural factors cannot explain the phenomena of multicultural countries in which some ethnic groups do better than others, although all operate with the same economic signals. Examples are the Chinese minorities in Thailand, Malaysia, Indonesia, the Philippines, and the United States; the Japanese

minorities in Brazil and the United States; the Basques in Spain and Latin America and the Jews wherever they are (Harrison 2000). However, Harrison also agreed that culture is difficult to deal with both politically and emotionally. It is difficult to deal with culture intellectually because there are problems of definition and measurement and because of the cause-and-effect relationships between culture and other variables like policies, institutions, and economic development run in both directions (Harrison 2000).

Porter (1990) stated that 'differences in national values, culture, economic structures, institutions, and histories all contribute to competitive success of a nation'. Porter (2000) acknowledged that the role of culture in economic progress is unquestioned, but interpreting this role in the context of other influences and isolating this independent influence of culture is challenging. In Porter's competitiveness Diamond model, cultural variable is not incorporated as the main pillar although he admitted the importance of cultural as a factor. Porter (2000, p. 15) argued that the same cultural attribute can have vastly different implication for economic progress in different societies or even in the same society at different times. For example, frugality served Japan well until its recent prolonged recession; now it is an obstacle to recovery. Therefore, there are no standard "cultural values" that can be applied to all for enhancing competitiveness.

In Hofstede's research (1983), Individualism/Collectivism cultural dimension performs a strong association with wealth performance. From 1970-

1971, through channel of IBM, Hofstede collected 116,000 questionnaires from IBM's employees across 50 countries when he was working in the IBM. One of the crucial results of the study is that wealthy countries are more individualistic and poor countries are more collectivistic. Very individualistic countries are the U.S, Great Britain and the Netherlands while all the poor countries are collectivistic with a larger power distance (Hofstede 1983). Another cultural dimension that associates with economic growth is Long term/Short term Orientation. The Confucian cultural bloc countries like China, Hong Kong, Taiwan, Japan and South Korea take the top five positions for the score index of Long Term Orientation. Thrift and persistence are the two main values of Long term Orientation. Development economists have been most interested in Individualism and the Long term orientation dimension (Hofstede 2001). However, Hofstede and Bond (1988) also stated that the causal relationship between Individualism and economy is from economy to Individualism and not from Individualism to economy.

Ronald Inglehart, the main coordinator of the World Values Survey, argued that there is a powerful link between cultural values and political economic development level of nations. Inglehart (2005, p.50) claims that cultural change is not linear, but it occurs after reaching a certain development stage. In Inglehart's (2005) study, wealthy nations share similar cultural values such as self-expression which relates to individualism. Modern nation emphasize more on materialist values while postmodern nation emphasize more post-materialist

values. The materialist values and post-materialist values of Inglehart are quite similar to Hofstede's Masculinity-Femininity cultural dimension. In Inglehart's study, developing nations have stronger survival values which concern more with material needs of advanced nations or post-modern nations pay more attention to spiritual need and nonmaterial concern, such as freedom and environmental concern (2005, p.30). In knowledge society, productivity depends less on material constraints than on ideas and imagination (Inglehart 2005). This creates a climate of intellectual creativity and stimulation in which spiritual concern again become more central. Inglehart's World Values Survey (2005) suggested that advanced nations, such as those in Western Europe, New Zealand, Australia and U.S.A stress more on self-expression values and post-materialist values. Inglehart's study provides very strong guidance in understanding the values changes for different stage economic development. For newly industrialized countries, materialist and survival values play significant roles in economic growth while self-expression and post-materialist values are more dominant in knowledge-based and innovation driven economies.

Shane (1993) investigated the effect of the cultural values on nation innovation rates, and found that there is a powerful relationship between culture and innovation. Shane (1993) examined the effects of Individualism, Power Distance, Masculinity and Uncertainty Avoidance on national rates of innovation in 33 countries in 1975 and 1980. The research suggests that nation may differ in their rates of innovation because of cultural values of their citizens. He argued

that countries may not be able to increase their rates of innovation simply by increasing the amount of money spent on research and development or industrial infrastructure. They may need to change the values of their citizens to those that encourage innovative activity.

Studies of Granato, Inglehart and Leblang (1996) suggested that cultural attitudes toward achievement have a positive effect on economic growth. GLOBE project by House et al. (2004) also supported performance oriented culture, achieving better wealth and economic prosperity. Other influential scholars in this area of study such as Landes (2000) also stated that if we learn anything from the history of economic development, it is culture that makes almost all the difference.

2.1 Existing Debates about the Roles of Cultural Factors in Four Asian Dragon's Growth

Rapid industrialization of East Asian countries from the 1970s through the 1990s has generated academician's interests in attempting to find out the factors attributed to the success of East Asia. One of the most exciting areas of study has to do with the proper identification of the cultural factors in the process of economic development (Hsiao 1988). Against this background of economic growth in East Asia, particularly the four Asian tigers- Korea, Taiwan, Singapore and Hong Kong and recent fast growth of China, some Western scholars have argued that cultural factor does play some roles in East Asian economic progress.

For instance Huntington (2000) commented that culture plays a significant role in the development process of South Korea. Huntington (2000) asserted that values of thrift, diligence, education and discipline contributed to the growth of the Korean economy. Huntington (2000) commented that;

> …In the early 1990s, I happened to come across economic data on Ghana and South Korea in the early1960s**,** and I was astonished to see how similar their economies were then. These two countries had roughly comparable levels of per capita GNP; similar divisions of their economy among primary products, manufacturing, and services; and overwhelmingly primary product exports, with South Korea producing a few manufactured goods. Also, they were receiving comparable levels of economic aid. Thirty years later, South Korea had become an industrial giant with the fourteenth largest economy in the world, multinational corporations, major exports of automobiles, electronic equipment, and other sophisticated manufactures, and a per capita income approximating that of Greece. Moreover, it was on its way to the consolidation of democratic institutions. No such changes had occurred in Ghana, whose per capita GNP was now about one-fifteenth that of South Korea's. How could this extraordinary difference in development be explained? Undoubtedly, many factors

> played a role, but it seemed to me that culture had to be a large part of the explanation. South Koreans valued thrift, investment, hard work, education, organization, and discipline. Ghanaians had different values. In short, cultures count (Huntington 2000, p. xiv)…

To explain the rise of industrial East Asia, Tu (1989) argued that the role of Confucian ethic underlying the East Asian society is important. Tu (1989, p.83) pointed out that, "the basic ethical concepts and values system of East Asia's newly industrialized countries (China, Japan, Korea) are similar, for example, all showing a strong emphasis on family solidarity, filial piety, subordination of the individual to the group, hard work as a value in itself, frugality, and education as morally uplifting and as the proper road to personal and family success. East Asia has been in the past and still is in many ways every bit as much of a cultural unit as is the West" (Tu 1989).

Thus, to understand the dynamic growth of East Asia, inquiry into its relationship with Confucianism is necessary. Tu argued that the modern West as a phase of human civilization urgently requires enlightened re-examination since Confucianism also functions very well in the modernization process. The rise of industrial East Asia, as a form of modernization, has not been associated with the Western individualism, which many western scholars emphasized the roles of individualism in the industrialization process (Tu 1989).

Study by Hofstede and Bond (1988) also found that Confucian values such as saving and perseverance contribute to the growth of the four Asian dragons. Based on statistical analysis on the relationship between Confucian values and economic growth, Hofstede and Bond (1988) found that all the fast growth Asian economies have shown long term orientation values (which are similar to Confucian values as Hofstede argued). Sakong (1993, p. 205) also pointed out that Confucian cultural heritage play significant role in Korea's development, particularly in the policy formulation and implementation. Values of hierarchy, loyalty and harmony have been highly valued in the Korean society and these have increased the effectiveness of policy implementation under a strong leadership (Sakong 1993).

However, Michael Porter has different views on the issue of cultural roles. Porter (2000, p.15) argued that the same cultural attributes can have vastly different implication for economic progress in different societies or even in the same society at different times. Porter provided example of Japan and argued that frugality serves very well for Japan until its recent prolonged recession; but now it is an obstacle to recovery. However, this "frugality" argument is not proven empirically. However, Paul Krugman also argued that Japan's economic problem is an example of liquidity trap, a situation where consumers and firms saved too much overall, thereby causing the economy to slow. Although the Japanese government has implemented zero interest policy for many years, Japan is still unable to get rid of deflation problem where people are not willing to spend. Nonetheless, the recent change in Japanese foreign exchange policy by making

the Japanese Yen cheaper has successfully enhanced Japan's growth, thus whether the "frugality" factor has been the growth's obstacle has yet to be determined.

Indeed, argument about Confucian-capitalism hypothesis highlighting the value of thrifts and hard work has generated a storm of protest from Asian economists, intellectuals and academicians. Lawrence Law (in Wong 1996) pointed out that argument about Confucian-capitalism hypothesis is often a tautology with weak explanatory power. Korean scholar-Cha Seong Hwan (2003) also shares similar view. Cha (2003) stated that many Korean scholars who support the Confucian-capitalism hypothesis are basically expressing their views on exaggerated assertions made by certain foreign scholars and journalists such as Tu and Aikman, without going through a process of verification. Cha (2003, p.494) pointed out that most of those who advocate Confucian capitalism begin their research with serious misunderstanding and a biased attitude with regard to Max Weber's study on capitalism and the economic ethics of world religions.

Another Korean scholar- Kim Kyung Dong (1994, p. 96) also argued that Confucianism of any kind, whether orthodox or reform-minded, historically was not the spiritual source of inspiration for indigenous transformation to capitalist development. Neo-Confucianism, the main philosophical teaching in Korean traditional society, does not stress the values of frugality, diligence, hard work, self-sacrifice or even some form of rationality like what other scholars suggest (Kim 1994). Stress on loyalty to group and company is affected strongly by military culture and not necessarily derived from Confucian teaching alone (Kim

1994). Kim argued that at the peak of the Neo-Confucianism era during the Choson dynasty in Korea, business sector was underdeveloped and traders were seen as "petty man", a great man is to pursue virtues and not wealth. Traders and business peoples were the low class people who were only concerned with self-benefit and material wealth. This concept had impeded the growth of business and economy during the Choson dynasty. Instead, the core values of Confucianism are benevolence, virtues and harmony human relationship which related closely to social order, which is quite feminine. If there was a single most important cultural factor that actually helped economic growth, it was certainly not Confucianism but nationalism as argued by Kim (1994). In fact Tu (1996), who demonstrated that Confucian culture played significant roles in the growth of East Asia, also admitted that academicians were at a loss to identify and defined how Confucian ethics actually worked in economic organization, political ideology, and social behavior.

Besides Confucianism capitalism hypothesis, there were Asian scholars who discussed the issue of cultural factors from the nationalism approach. For instance, Moon (1998) argued that nationalism serves as the motivating factor to push Korean to work hard for the nation. Success of Korea is not only a national pride but also the pride of an individual Korean. Nationalism pushes for collectivism and promotes self-sacrifice spirit. This has created a disciplined and hardworking workforce which has contributed to the success of industrialization. Kim and Park (2003) also demonstrated that strong nationalism played a major

part in the economic modernization and industrialization of Korea, especially as an ideological source for mass mobilization.

Overall, many studies have supported the proposal that culture counts for the success of Korea, and their studies focused on Confucianism and nationalism factor. However, this study is not designed to seek whether Confucianism contributes to the productive culture of Korea; this study examines the link between cultural values and national competiveness as a whole, including non-Confucian values, in comparison with Malaysia.

2.2 A Review of Existing Cultural Models

Scholars have come forth with various cultural models to show how cultural differences affect business competitiveness, and the majority is at organizational level. Organizational behavior, organizational culture and business/corporate culture are important management areas in human resource management. Cross-cultural management is gaining importance in today's highly globalized world with the expanding activities of multinational companies from the East to the West.

In cross cultural studies, Hofstede's (1983) cultural dimensions of Individualism-Collectivism, Power Distance, Uncertainty Avoidance and Masculinity-Feminity have served as the foundation in the cross-cultural management field since early 1980s. Hofstede added several new dimensions in later time, namely Long term vs Short term orientation. Hofstede's finding was

one of the earliest studies that calculated the statistical relationships between cultural dimensions. However, Hofstede did not study the interaction between the various cultural aspects and economic achievement in detail as he was working to establish the foundation for cross-cultural management studies. The aim of his study is to compare the cross-cultural values within an organized framework. The cultural dimensions model created by Hofstede is very useful in explaining the cultural differences between different countries and ethnics, which making Hofstede's work the most cited paper in social sciences. In a comprehensive analysis of national culture, he tapped the interface between national cultures and organizational culture. Hofstede (1983) defined culture as the '…collective mental programming of the people of an environment." Every person's mental programming is partly unique, partly shared with others. He labelled dimensions of basic cultural values. Among the cultural dimension, Individualism-Collectivism as the most important dimension that has shown the crucial link with economic performance (Hofstede 1983). Hofstede's research result shows that Individualism is highly related to the wealth of countries. This finding is consistent with Inglehart's study (2005), which suggested that post-modernized society expresses more self-expression values.

Another renowned cross-cultural research project, - GLOBE, which was conducted by the House et al. (2004), has contributed to the newest cultural dimension model. In the book entitled Culture, Leadership and Organizations, edited by House et al. (2004), the cross cultural study on 62 societies is published, which aimed to investigate the relationship between values, practices, leadership

and firm performance. The GLOBE project involved 170 researchers from 62 cultures, with survey data from 17,300 managers in 951 organizations.

The cultural dimension model developed by the GLOBE consist of nine dimension, namely Power Distance, Uncertainty avoidance, Societal Collectivism, In—group collectivism, Assertiveness, Gender egalitarianism, Future orientation, Performance Orientation and Humane Orientation. The first six cultural dimensions had their origins in the dimensions of culture identified by Hofstede (1980). The dimension of Future Orientation is similar to Hofstede's Long Term vs Short Term Orientation; while the Assertiveness, Gender Egalitarianism and Humane Orientation is similar to Masculinity vs Femininity dimension of Hofstede. Although many of the dimensions overlapped with Hofstede's cultural model, however the definition and interpretation for each dimension is slightly different.

According to House et al. (2004), Power Distance is defined as the degree to which members of an organization or society expect and agree that power should be unequally shared. Uncertainty Avoidance is defined as the extent to which members of an organization or society strive to avoid uncertainty by reliance on social norms, rituals, and bureaucratic practices to alleviate the unpredictability of future events. Collectivism I: Societal Collectivism reflects the degree to which organizational and societal institutional practices encourage and reward collective distribution or resources and collective action. Collectivism II-In-group Collectivism reflects the degree to which individuals express pride, loyalty and cohesiveness in their organizations or families. Gender Egalitarianism is the

extent to which an organization or a society minimizes gender role differences and gender discrimination. Assertiveness is the degree to which individuals in organizations or societies are assertive, confrontational, and aggressive in social relationships. Future Orientation is the degree to which individuals in organizations or societies engage in future-oriented behaviors such as planning, investing in the future, and delaying gratification. Performance Orientation refers to the extent to which an organization or society encourages and rewards group members for performance improvement and excellence. Finally, Humane Orientation is the degree to which individuals in organizations or societies encourage and reward individuals for being fair, altruistic, friendly, generous, caring and kind to others.

GLOBE's nine cultural dimensions were conceptualized in two ways: practices or "as is," and values or "should be." Based on the GLOBE's finding, they find that dimension of Uncertainty Avoidance, Future Orientation and Performance Orientation has significant relationship with economic prosperity of a society. Nonetheless, the problem with GLOBE's project is that the research results of "values" and "practice" are contradictory.

Another study by Trompenaars and Hampden-Turner (1998) examined the relationship between cultural values and business performance aimed to suggest human resource management guidance to international managers, on how to manage different cultures effectively. To obtain raw value data, they conducted surveys involving 50,000 respondents from 100 countries; however, only 30,000 cases from 55 countries were used as valid data. To compare the values

differences from 44 countries, Trompenaars and Hampden-Turner (1998) developed a cultural dimension model consisting seven dimensions, namely Universalism vs. Particularism; Individualism vs. Collectivism; Neutral vs. Affective; Specific vs. Diffuse; Achievement vs. Ascription; Time (sequential vs. synchronous); and Environment (internal vs. external control).

According to Trompenaars and Hampden-Turner (1998), Universalism vs. Particularism was defined as whether a culture is based on rules and standards or relationship and trust. This dimension is similar to the Uncertainty Avoidance dimension by Hofstede. Individualism vs. Collectivism measures whether a culture focuses more on the group or individual. Neutral versus Affective measures whether the person within a culture expresses one's emotion openly or not. Specific versus Diffuse demonstrates whether the public and private life is closely linked or not. Achievement versus Ascription measures whether a culture rewards one according to one's performance or to one's age, status, or gender. These four dimensions are similar to Hofstede's Individualism versus Collectivism dimension. Other dimensions that are not included in Hofstede's model are the Time and Environment dimensions. The Time dimension (Sequential versus Synchronous) measures whether people tend to do one thing at a time or several things at once. The Environment dimension (Internal vs. External Control) measures whether people can control or should harmonize with nature. In brief, except the Environment and Time dimensions, the other six dimensions are similar to Hofstede's cultural dimension. The dimensions of Universalism versus Particularism overlaps with Hofstede's Uncertainty

Avoidance dimension, while the Individualism versus Collectivism, Neutral versus Affective, Specific versus Diffuse, and Achievement versus Ascription is similar to Hofstede's Individualism versus Collectivism dimension.

Kluckhohn and Strodtbeck (1961 cited Hills 2002) also developed a cultural model that categorizes values orientation in five dimensions. The first dimension is about time orientation, which explains what aspect of time we should primarily focus on – the past, present or the future? The second dimension is about the relationship between human and nature, it explains whether human master nature, submission to nature or harmony with nature? The third dimension is about how individuals should relate with others, either hierarchically, as equals or according to individual merit? The fourth dimension is about motivation, either to express one's self (being), to grow (being-in-becoming) or to achieve? The fifth dimension explains the nature of human being, good, bad (evil) or a mixture of good and bad? The theory developed by Kluckhohn and Strodtbeck (1961 cited Hills 2002) is also widely used in cross-cultural studies.

Another multinational business firm study conducted by Perlmutter (1969), categorized multinational firm's management culture into three types, which were named the EPG Profile. Perlmutter (1969) presented several variables that focused on the primary attitudes of international executives, allowing an understanding of how various cultural aspects affect the success and failure of a multinational corporation. The EPG Profile consists of three dimensions - Ethnocentricity (home-country orientation), Polycentricity (host-country orientation), and Geocentricity (world-orientation). According to Perlmutter,

geocentrism is the ideal type of attitude that executives should have for growth and success and ethnocentrisms should be avoided.

In an extension to Hofstede model, Moon and Choi (2001) developed an OUI model. The study is based on the statistical relationship tests across 68 countries, examining the relationship between cultural values and competitiveness. Based on the study, Moon and Choi (2001) argued that Individualism is not the only cultural dimension that associates positively with economic growth but the Openness and Uncertainty Avoidance dimensions are also highly related to the wealth of a nation. The study argues that if a nation/ethnic/company aims to be more competitive, they should transform their culture to become more individualistic, open and uncertainty avoidance-oriented (Moon 2004). Moon (2004) argued that Individualism should be at the final stage of development to promote innovations, as evidenced in Japan and Korea in particular. In addition to the OUI model, Moon (2012) developed another theoretical framework – the ABCD model which explains the key success factors of Korea. The ABCD model consists of four components, namely Agility, Benchmarking, Convergence and Dedication. Among the four components, Agility and Dedication are the two components highly related to culture, which demonstrate the important role of speed, precision, diligence and goal-orientation in Korea's development experiences. The following Table 2.1 summarizes the existing cultural dimension model.

Table 2.1 Selected models of cultural dimensions

Hofstede (2001)	Trompenaars and Hampden-Turner (1998)	House et al. (GLOBE) (2004)	Moon and Choi's (2001) OUI Model	Kluckhohn and Strodtbeck (1961)
Individualism-Collectivism: Relative importance of individual vs group interest in society *Uncertainty Avoidance*: Extent to which people feel threatened by uncertain or unknown situations. *Power Distance*: Beliefs about the appropriate distribution of power in society. *Masculinity-femininity*: Material possessions vs quality of life, of achieving something visible and big vs modesty, fast vs slow. *Time orientation*: Long-term vs short-term outlook on work and life. Importance of saving,	*Universalism-particularism*: The degree to which rules are uniformly or situational applied. *Individualism-collectivism:* Do people derive their identity from within themselves or their group? *Specific vs diffuse*: Are an individual various roles compartmentalized or integrated? *Neutral vs affective*: Are people free to express their emotions or are they restrained. *Achievement vs ascription*: How are people accorded respect and social status? *Time perspective*: Do people focus on the past or the future? *Relationship with environment*: Do	*Power Distance*: Degree to which people expect power to be distributed equally. *Uncertainty Avoidance*: Extent to which people rely on norms, rules, and procedures to reduce the unpredictability of future events. *Humane Orientation*: Extent to which people reward fairness, altruism and generosity. *Institutional Collectivism*: Extent to which society encourages collective distribution of resources and collective action. *In-group collectivism:* Extent to which individuals express pride, loyalty and cohesiveness in	*Individualism* The degree to which a person is given responsibility and reward for performance on an individual basis. *Uncertainty Avoidance*: The degree to which people in a country prefer structured situations to unstructured ones. Disciplinism and frontierism are the sub-variable of this dimension. *Openness:* The degree to which people are willing to accept and change according to need, both outbound and inbound, which related to Perlmutter's	*Time*: focus on the Past, present, or future *Humanity and natural environment*: mastery over the nature, or submission to nature or harmony with nature *Relation with other people*: hierarchical, equal(group consensus) or follow the merit(individual) *Motive for behaving*: Being(focus on self), being-in-becoming(valued by us), achievement(approved by ourselves and others) *Nature of human being*: Good, bad or mixture Inglehart (2005) Traditional vs. Secular-rational values and

planning and determination.	people control the environment or does it control them?	their organizations and families. *Assertiveness*: Degree to which people are assertive, confrontational and aggressive in relationships with others. *Gender egalitarianism*: Degree to which gender differences are minimized. *Future orientation*: Extend to which people engage in future-oriented behaviors such as planning, investing and delayed gratification. *Performance orientation*: Degree to which high performance is encouraged and rewarded.	EPG profile (Ethnocentric, Polycentric and Geocentric).	Survival vs. Well-being

CHAPTER 3: RESEARH METHODOLOGY

This study uses a combination of quantitative and qualitative research methodologies. In the quantitative component of the study, the statistical relationship between cultural value data and national competitive performance data is analyzed. A cultural dimension model, developed for the purpose of this study, provides a framework for the analysis. This cultural dimension model describes culture across three dimensions; Individualism, Uncertainty Avoidance, and Openness. A cultural dimension model helps to organize and categorize the cultural values in a more systematic way, which is important for analyzing the cultural issues using structured inferential statistical approaches.

To study the relationship between the cultural values and national competitiveness, the source cultural value data was obtained from the World Value Survey (WVS) (2005 – 2009). The WVS provides high quality national level value data from a large number of countries. Performance data, including levels of innovation, R&D investment, academic/educational performance, FDI inflow, and trade openness was obtained from various sources, including the World Bank's World Development Indicator, World Intellectual Property Organization (WIPO), United Nations Conference on Trade and Development (UNCTAD), and other international organizations.

In addition to the quantitative analysis relying on a vast sample size, specific country studies of South Korea and Malaysia have also been conducted. Given the primary purpose of this study is to investigate East Asian values and their

influence over national competitiveness, South Korea and Malaysia were chosen as for comparison purposes. South Korea represents an advanced East Asian Sinic Confucian economy, while Malaysia was chosen as being representative of a South East Asian culture and developing economy. Several methods could be used to study cultural values. The most common one is by conducting survey and interviews. Table 3.1 below summarizes the main methods used to study organizational and societal cultures.

Table 3.1 Methods of studying culture (society and organization)

From outside	From inside
• Organization specific and literature • Microeconomic statistics, annual reports • Historical information on the company • Face to face interviews • Surveys, instruments, questionnaires • Watching, listening, interacting • Documented biographies of founders, role models • Press cuttings, printed matter, publications • Advertising jingles	• Unstructured interviews and interpretation of symbols, shared values and practices(company observances and personal experiences) • Listening to what members of different age levels are saying about how they do things • Reading and analyzing company's documents and speeches of leaders • Examining written and unwritten objectives • Identifying the skillful accomplishments (members and employees who are successful and the criteria used to evaluate them) • Reading what and how the company speaks of its values to others by oral and print matter, annual speeches, international publications, policy manuals, and training course content • Finding out the forms of greetings, stories, anecdotes, real power structures, how decision are made, how people spend time, types of furniture used, technology available and announcements on bulletin boards • Patterns of interaction between individuals) seniors, juniors, subordinates, peers and superiors) • Language used, especially specialized language and technical jargon • Identifying images and how they are used in conversation • Observing and reflecting the rituals of daily routine • Internalizing its values and engaging in its shared practices

Source: Abdullah (1996, p.48)

In addition to World Values Survey data, primary data were collected by searching documents, biographies and books written by nation leader, speech content and quotes (made by political and business leaders) and media reports (Malaysian, Korean national and international newspapers). Secondary data were collected from library research such as journal's and books' articles. In brief, method two and four as shown in the following table will be used as the main data collection method.

Table 3.2 Four available strategies for operationalizing constructs about Human Mental Programs

	Provoked	Natural
Words	1 Interviews Questionnaires Projective tests	2 Content Analysis of speeches Discussions Documents
Deeds (actions, non verbal behavior)	3 Laboratory Experiments Field Experiments	4 Direct observation Use of Available descriptive statistics

Source: Hofstede (2001)

3.1 Definitions of Terms

3.1.1 Definition of national competitiveness and existing studies

According to Porter (1990), a nation's prosperity depends on its competitiveness, which is based on the productivity with which it produces goods and services. Thus, the keyword of competitiveness' is "productivity". Porter (1990) stressed that capacity of a nation in innovation and creation of knowledge determines its level of competitiveness, not the inherited natural resources. Porter (1990) also mentioned a number of factors affecting a nation's competitiveness, such as government, labor, local market, economic structure and policies, domestic rivalry and home-based suppliers.

The father of modern economics - Adam Smith suggested that the free market system, specialization and the division of labor are significant at enhancing a nation's productivity and to generate better wealth. John Maynard Keynes, a British economist who established the Keynesian economic theory, believed that government intervention in the market is necessary to keep an economy stable and growing. Neoclassical economists emphasized investment in physical capital and infrastructure particularly for the factor-driven economies. Other mechanisms such as education and training, technological progress, macroeconomic stability, good governance and market efficiency are also significant factors in determining a country's productivity growth. In short, there are many determinants driving productivity and competitiveness.

The World Economic Forum, which publishes the global competitiveness index report every year, defines competitiveness as the set of institutions, policies and factors that determine the level of productivity of a country (The Global Competitiveness Report 2013, p.4). WEF demonstrates that the level of productivity set the level of prosperity that can be earned by an economy, which determines the rates of return obtained by investments in an economy, and a more competitive economy is likely to sustain growth (The Global Competitiveness Report 2013, p.4).

According to the WEF, the competitiveness index is calculated based on 12 factors, namely the quality of institution[2], infrastructure[3], macroeconomic environment[4], health and primary education, higher education and training, labor market efficiency[5], financial market development[6], technological readiness[7],

[2] Factors contributed to quality of institution include property right, corruption, judicial independence, wastefulness of government spending, burden of government regulation, efficiency of legal framework in settling dispute, transparency of government policy making, government provision of service for improved business performance, business cost of terrorism, business cost of crime and violence, organized crime, reliability of police services, ethical behavior of firms, strength of auditing and reporting standards, efficacy of corporate boards, protection of minority shareholders' interest, strength of investor protection.

[3] Infrastructure means by quality of roads, railroad infrastructure, port infrastructure, air transport infrastructure, available airline seat kilometers, electricity supply, mobile telephone subscription and fixed telephone lines.

[4] Factors contributed to macroeconomic environment include government budget balance, gross national saving, inflation, government debt, country credit rating

[5] Include cooperation in labor-employer relations, flexibility of wage determination, hiring and firing practice, redundancy costs, pay and productivity, reliance on professional management, brain drain and female participation in labor force.

[6] Include availability of financial services, affordability of financial services, financing through local equity market, ease of access to loans, venture capital availability, soundness of banks, regulations of securities exchanges and legal right index.

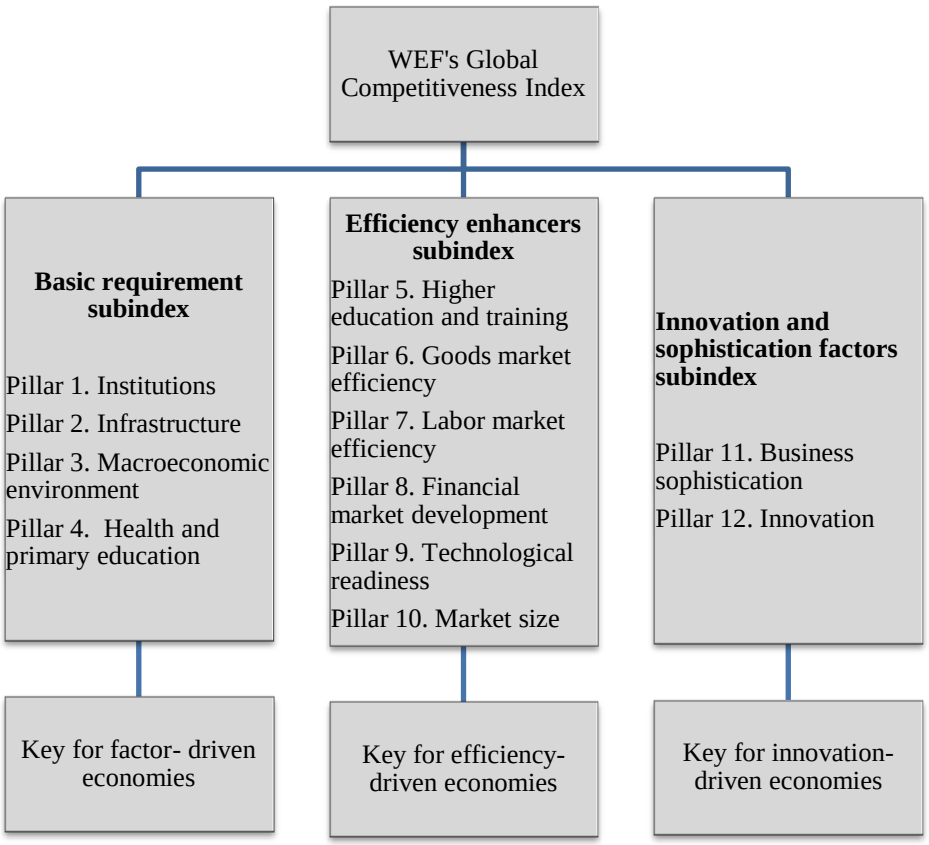
market size, business sophistication (business network and firm quality)[8] and innovation[9]. The first four pillars are very important for developing economies, which are the basic requirements for improving competitiveness at the initial stage of development, while the last two pillars - business sophistication and innovation, are the crucial factors for innovation-driven economies to sustain growth. Figure 3.1 below illustrates the main components in the construction of the global competitiveness index by the WEF. At present, the WEF competitiveness index is well known globally compared to other studies.

[7] Include availability of latest technologies, firm-level technology absorption, FDI and technology transfer, internet users, fixed broadband internet subscriptions, internet bandwidth and mobile broadband subscriptions.

[8] Include quantity and quality of local suppliers, state of cluster development, nature of competitive advantage, value chain breadth, control of international distribution, production process sophistication, extent of marketing and willingness to delegate authority

[9] Factors contributed to innovation include quality of scientific research institutions, company spending on R&D, university-industry collaboration in R&D, government procurement of advanced technology products, availability of scientists and engineers and PCT patent applications.

Figure 3.1 The Global Competitiveness Index framework by WEF

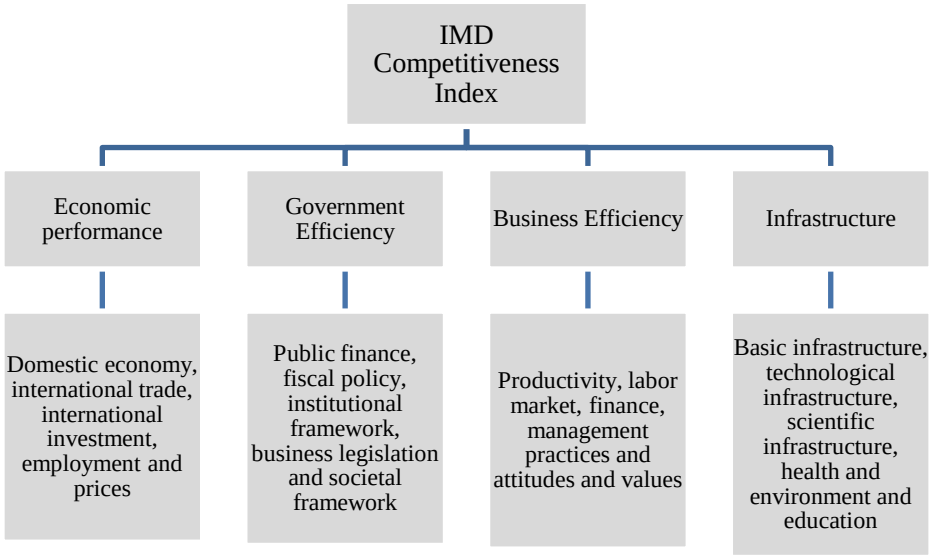


Source: The Global Competitiveness Report, 2014, p.9

The International Institute for Management Development (IMD), which publishes the World Competitiveness Yearbook every year, defines competitiveness as the ability of nations to create and maintain an environment in which enterprises can compete. According to IMD, the four main factors contributing to a nation's competiveness are economic performance, government efficiency, business efficiency and infrastructure. Five sub-factors under

economic performance are domestic economy, international trade, international investment, employment and prices. Sub-factors of government efficiency are public finance, fiscal policy, institutional framework, business legislation and societal framework. For business efficiency, the sub-factors are productivity, labor market, finance, management practices and attitudes and values. Sub-factors of infrastructure include basic infrastructure, technological infrastructure, scientific infrastructure, health and environment and education. In IMD's research methodology, hard criteria represent a weight of 2/3 in the overall ranking whereas the survey data represent a weight of 1/3. It is quite different from the World Economic Forum which mainly uses survey data for calculating index. The following Figure 3.2 illustrates the basic components of IMD competitiveness index.

Figure 3.2 IMD competitiveness index

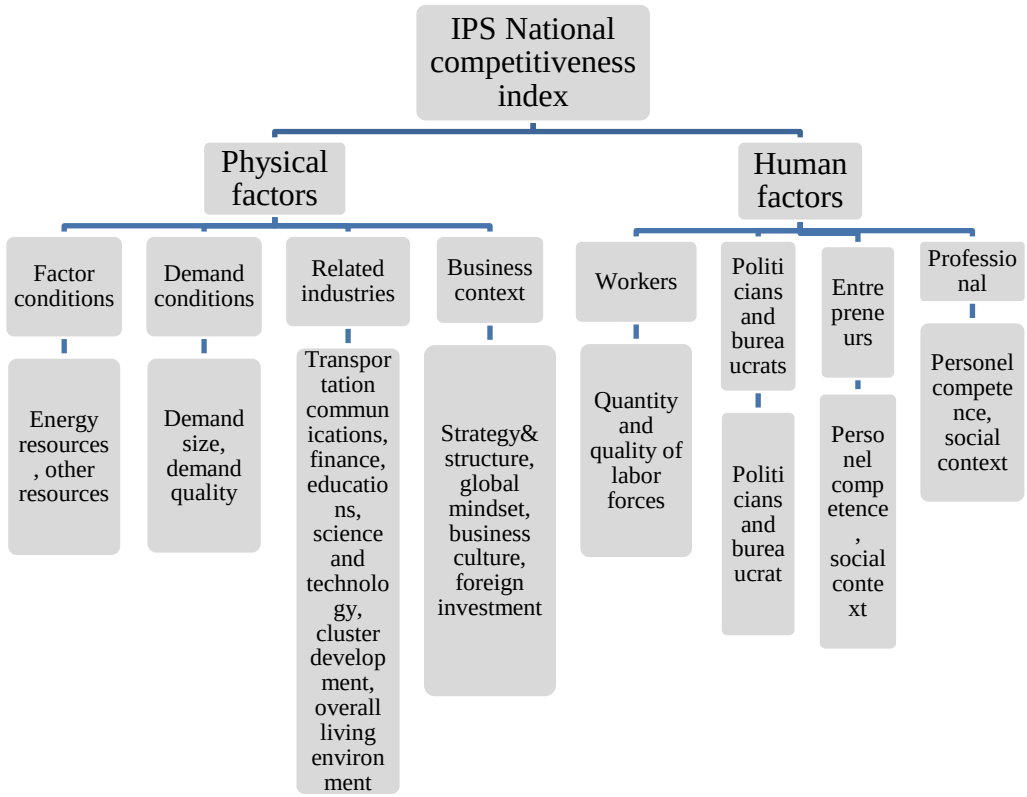


Source: IMD Organization, 2013

In addition to WEF and IMD, the Institute for Policy and Strategy (IPS) on national competitiveness based in Korea developed its own competitiveness index for more than 60 countries. The IPS argues that the existing studies which produced the world competitiveness index are unreliable and often flawed. IPS points out that the existing studies are not well equipped with the necessary theoretical knowledge in national competitiveness or research methodology. Thus, the Institute for Industrial Policy Studies (IPS) and the Institute for Policy and Strategy on National Competitiveness (IPS-NaC) have jointly published the "IPS National Competitiveness Research" since 2001. Based on Porter's diamond model, IPS developed a modified model for constructing national

competitiveness. According to the IPS's methodology, there are two main factors, namely physical and human factors. Sub-factors of physical factor are conditions, demand conditions, related industries and business context. Sub-factors of human factor are workers, politicians and bureaucrats, entrepreneurs, professional and final one is chance (events). Figure 3.3 illustrates the basic components of IPS competitiveness index.

Figure 3.3 IPS National Competitiveness Index



Source: Institute for policy and Strategy (IPS), Korea.

After having reviewed the related studies, this study defines competitiveness as a set of factors that determine the level of prosperity and quality of living of a country, such as innovation capacity, quality of, R&D spending and openness toward international trade and foreign investments. It is related strongly to economic performance, but slightly different because it includes non-economic activities such as education. If this study chooses

"economy" as the dependent variable, then GDP is the only measurement index as dependent variable in all the cultural dimension variable, it would restrict the scope and unable to investigate from different aspect. Since gross domestic production (GDP) is comprised of investments, consumption, government spending and net export, this study chooses the word "competitiveness" instead of "economy" in order to make this study inclusive and comprehensive. According to IMF (2012), GDP is defined as the total output of goods and services produced in a country in given period of time and often used as a measure of whether the average citizen in a country is better or worse off. However, IMF (2012) also pointed out that the GDP calculation methodology has its limit where not all productive activities are included in GDP. In addition, by looking at GDP alone, it is not enough to measure the overall standard of living or well-being of a country. For instance, the literacy rate, quality of education, freedom, clean environment, public order and safety are not captured in GDP, thus the GDP cannot reveal the general well-being of a nation.

Therefore, by using the word of "national competitiveness", non-economic variables could be included in the study, for instance educational performance. To look for the relationship between national competitiveness and cultural values, this study does not use a single index of competitiveness, but only selects a few sectors that are significant in representing a nation's competitiveness, such as innovation capacity (which is very significant for innovation driven economies and the key factor for improving productivity and income), R&D investment (which is significant to show the readiness and long term investment for future),

education performance (to show the quality of human capital), foreign direct investment inflow and international trade openness (to show the level of openness and its commitment towards the globalization today). Among the competitiveness area, innovation index is one of the most significant aspects since innovation is the foundation of economic prosperity and technological advancement; it is the key factor for middle income countries shifting to high income status.

Overall, this study examines the pattern of relationship between a culture specific dimension and certain aspects of competitiveness, for example the relationship between individualism and innovation, uncertainty avoidance and R&D expenditure. Each dimension of cultural values works differently with different aspects of achievement; therefore, a single competitiveness index is not used. For instance, individualism may work positively with innovation but not related to legal framework; openness may work significantly with trade and FDI but has no relationship with government spending and infrastructure. Therefore, this paper would only examine a culture specific dimension with a certain aspect of competitiveness. In addition, the global competitiveness index constructed by current studies (WEF and IMD) has drawn a lot of criticism and skepticism, making it less reliable to be used as a single measurement index of competitiveness. However, the relationship of each cultural dimension with GDP per capita also tested as additional test for examining the overall cultural relationship with economy.

3.1.2 Definition of cultural values

It is important to define the meaning of culture before going into details of analysis. The term "culture" has multiple meanings in different disciplines and different contexts. It is often used to refer to the intellectual, musical, artistic, and literary products of a society (Huntington 2000). However, this paper is not concerned with the full aspect of culture. The focus of this study is on cultural values, and their possible or potential effects on national competitiveness and growth.

There are many studies of the definition and function of cultural values. For instance, Hill (2002) defined cultural values as the central to human thought, emotions and behaviors which influence the attitudes and behaviors of group members. It determines the way in which a group of people solves problems and reconciles dilemmas. Hofstede (1983) suggested that culture is collective mental programming; it is that part of our conditioning that we share with other members of our nation, region, or group but not with members of other nations, regions, or groups. Husted (1999) defined cultural values as those conceptions of the desirable that are characteristic of a particular people. For Clyde Kluckholn, he defined culture as the collection of beliefs, values, behaviors, custom and attitudes that distinguish the people of one society from another. Steers, Runde and Nardon (2010) defined culture as characteristic shared by members of a group and, indeed sometimes defines the membership of the group itself.

There are many cultural values; however, the main interest of this study is cultural values which are highly related to economic development, or economic culture. As Porter (2000) has demonstrated that culture which influences competitiveness does not mean food, housing or costume but are beliefs, attitudes and values that bear on the economic activities of individuals, organizations, and other institutions, or so called economic culture. Thus, the definition of culture here is related to values, attitudes, beliefs, orientations, and underlying assumptions prevalent among people in a society that have an effect on national competitiveness. This paper explores how culture in this subjective sense affects the extent to which and the ways in which to achieve progress in wealth development.

To make it clearer and presented in an organized way, cultural dimension model is used as the theoretical framework, which categorizes values into dimensions of Individualism, Uncertainty Avoidance and Openness. Certainly, there are many cultural dimension models developed by other scholars for analysis at national, societal, organization and individual levels in several fields; however, this study only focuses on the value dimension that may have significant association with a nation's competitiveness.

3.2 Unit of Analysis and Rationality

A. Quantitative component: Statistical relationship test across many countries (*n* = 32-51)

To ascertain the general relationship between cultural values and national competitiveness, the statistical correlation across 32 to 51 countries, depending on the data availability on each cultural dimension and competitiveness performance data, is tested. Value data is sourced from the World Values Survey (2005 – 2009), while the performance data was obtained from the World Development Indicator, WIPO, PISA and other international organizations.

B. Qualitative component: Specific country studies of Korea and Malaysia and the rationality of selection.

For in-depth studies of individual countries, South Korea and Malaysia were selected. The primary reason of choosing Malaysia for comparison with Korea is that these two countries share similar political economic system but are culturally different. South Korea is part of the Confucian Asian cultural bloc or Sinic civilization zone. Malaysia, on the other hand, is a multicultural society heavily influenced by Islam and Indian civilization, these influences accounting for at least 65% of the population. The influence of Chinese civilization has been largely limited to the minority ethnic Malaysian Chinese. Historically, there was early contact between Malaysia and China as early as 1st century CE, but such contact was limited to trade and diplomatic exchange. Korea, on the other hand,

has been absorbing Chinese cultural influences continually over the past 5000 years. Ethnic Malays comprise the largest ethnic group in Malaysia. Consequently, political power is held by Malay leaders who use their influence to control national development policy making and institutional systems. Ethnic Chinese make for the second largest ethnic group (25%) in Malaysia, followed by ethnic Indians being the third largest ethnic group (7%). However, because ethnic Malays are the largest ethnic group, comprising 65% of the national population, Malay values and ethics are the main focus of this study.

For comparing cultural influences and their effects on national competitiveness, culturally dissimilar countries with similar political economic systems have been chosen for analysis. Malaysia and South Korea both are young countries that began the process of industrialization at about the same time. Both economies are export oriented. It would be unfair to compare the economy of South Korea with other countries having distinctly different political economic systems or significantly different industrialization histories. For instance, it would be improper to compare Korea with Japan since Japan has begun its modern industrialization two hundred years ago, and emerged as an Asian economic power in early 20th century, but Korea only begun to industrialize during the 1960s. It would also be inappropriate to compare distinctly different political economic systems, such as comparing South Korea to a communist country like Vietnam which had closed its markets until the late 1980s. It is also be improper to compare with Myanmar or Cambodia, since these two countries have a long history of political instability. However, Malaysia is only one stage

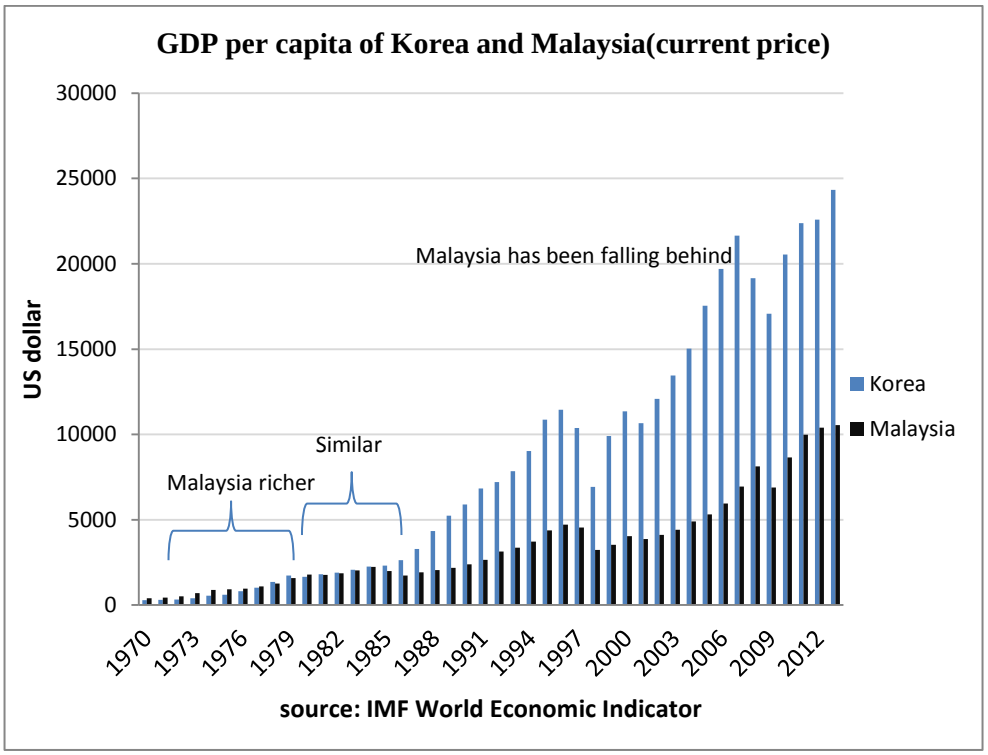
behind Korea in terms of economic development. Like Korea, the Malaysian approach to the economy can be described as "guided capitalism," has an open economy, a democratic electoral political system, and a globalized economy. However, Malaysia is culturally very distinct from South Korea. Table 3.3 summarizes the similarities and differences between Korea and Malaysia.

South Korea and Malaysia both are young countries. The Republic of Korea was established in 1948 and Malaysia was established, having gained independence from Britain, in 1963. In the 1950s, South Korea was considered one of the poorest countries in the world after the massive damage of Korean War. However, South Korea rapidly rebuilt its national infrastructure to become the advanced economy that it is today. South Korea is a fast growing innovation-driven economy. Malaysia, on the other hand, remains trapped at the middle-income level. In 1970s, resource rich Malaysia was relatively richer than South Korea was at the time, but from early 1980s South Korea began to catch up. The rapid economic growth of South Korea continued through into the 1990s. However, the 1997 Asian Financial Crisis caused massive damage to South Korean economy. Notwithstanding, the Korean people quickly revived the economy with a range of reformation programs and no small amount of hard work. The Malaysian economy, in the meantime, remained dependent on the primary resource sector and foreign direct investment. Local industries have grown slowly and most remain small or medium sized, particularly the technology innovation-driven industries. In fact, Malaysian leaders, such as former Prime Minister of Malaysia, Mahathir bin Mohamad, foresaw the

importance of technology development and had encouraged learning about the development technology industries from Japan and Korea since the mid-1980s. However, Malaysia has been unable to replicate Korea's achievements. To explain the miracle growth of the South Korean economy, Huntington (2000) argued that Korean successes cannot be separated from its productive economic culture.

Located in South East Asia, Malaysia is of a similar size to Korea, and was relatively richer than Korea until 1970s. Today, however, the GDP per capita of South Korean is 2.5 times larger than Malaysia's GDP per capita. Do political economic systems sufficiently explain these differences? Or do cultural factor provide a better explanation of these differences? Although the IMD and World Economic Forum report similarities in the competitiveness levels of these two countries, the GDP per capita gap between Korea and Malaysia, as shown in the Figure 3.4 is growing.

Figure 3.4 Comparison of GDP per capita of Korea and Malaysia (1970-2013)



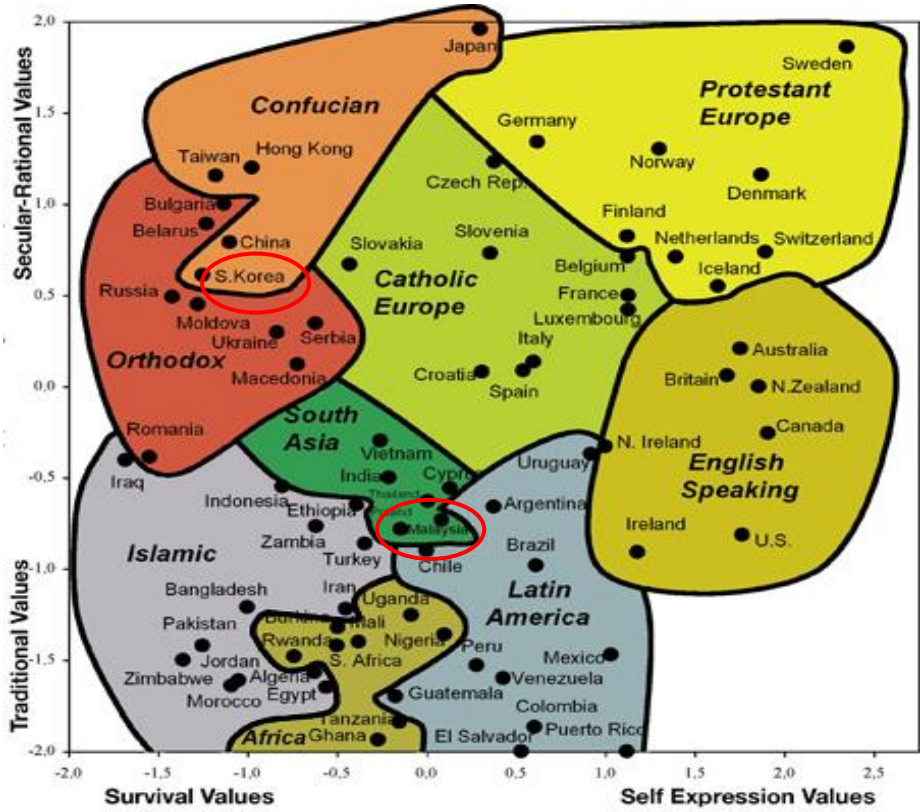
This trend indicates that Malaysia's wealth progress has been falling further behind every year, resulting in a widening income gap with Korea. Based on currently trends, this gap is expected to continue growing over the coming years. Table 3.3 summarizes the differences and similarities of these two countries.

Table 3.3 Background comparisons of South Korea and Malaysia

	South Korea	**Malaysia**
Region	North East Asia- temperate climate	South East Asia- tropical climate
Race origin family group	Mongoloid	Austronesian (65%)
Civilization branch	Sinic civilization(Confucian)	Islam from 15th century (before 15th century =Indian civilization)
Land and population size	Medium (100,210 km^2 ,48mil)	Medium (330,803 km^2 , 28mil)
Year of nation was formed	1948	1963
Government system	Presidential Republic	Federal Constitutional elective monarchy & Parliamentary Democracy
Guided capitalism	Yes	Yes
Open economy and export oriented since 1960s.	Yes	Yes
GDP per capita in US$ in 1970,1980,1990, 2000, 2009	$276,1647 ,$5893,$9607, $16450 (IMF)	$405,1780 ,$2395,$3666 $7469(IMF)
Current economic development stage(2010)	Advance and Industrialized economy- Innovation driven (World Economic Forum 2009)	Developing and Newly Industrialized Economy. Efficiency driven (World Economic forum 2009)

Based on WVS 2005 – 2009 data, Inglehart and Welzel (2010) have drawn a cultural map of world (see Figure 3.5). Korea is grouped into the Confucian cultural bloc and Malaysia is in South Asia bloc, indicating that these two countries are from different cultural zones.

Figure 3.5 The World Value Survey cultural map 2005-2009



Source: Inglehart and Welzel (2010, p. 554).

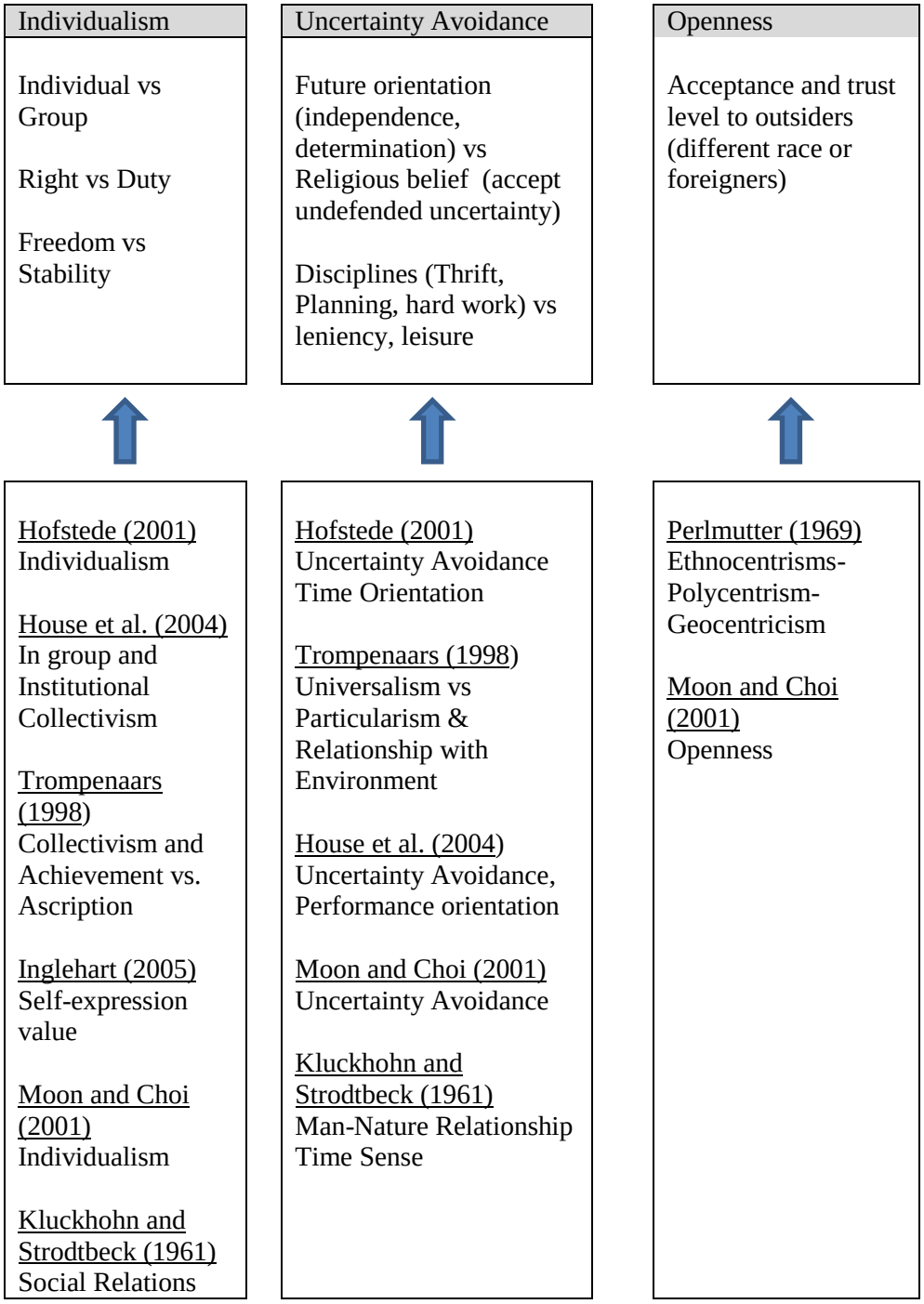
3.3 Analytical Framework

The purpose of this study is to investigate how cultural values affect national competitiveness. To compare differences in cultural values and how these affect a country's competitiveness, a cultural dimension model is used to provide a framework for the analysis of both the quantitative and qualitative data. It is hard to perform an analysis across different cultures effectively without a classification system of value dimensions because there are many cultural values. To develop a suitable cultural dimension model for this study, other researchers cultural dimension models have been reviewed and taken to inform the development of the present model.

After having reviewed the major cultural dimension models, this study chooses the dimensions of Individualism, Uncertainty Avoidance and Openness for analysis. Since this study is designed to examine relationships between cultural values and national competitiveness, Moon and Choi's (2001) OUI model has shown the importance of Individualism, Uncertainty Avoidance and Openness on a nation's competitiveness level. Basically, the OUI model is an improved model of the Hofstede's model. Moon and Choi (2001) studied Hofstede's dimension model and created the modified OUI model. Moon and Choi (2001) incorporated the dimension of power distance into Individualism, and removed the dimension of Masculinity and Long term orientation by arguing that certain values of masculinity and long term orientation overlapped with the dimension of Individualism, for instance the value of performance orientation in

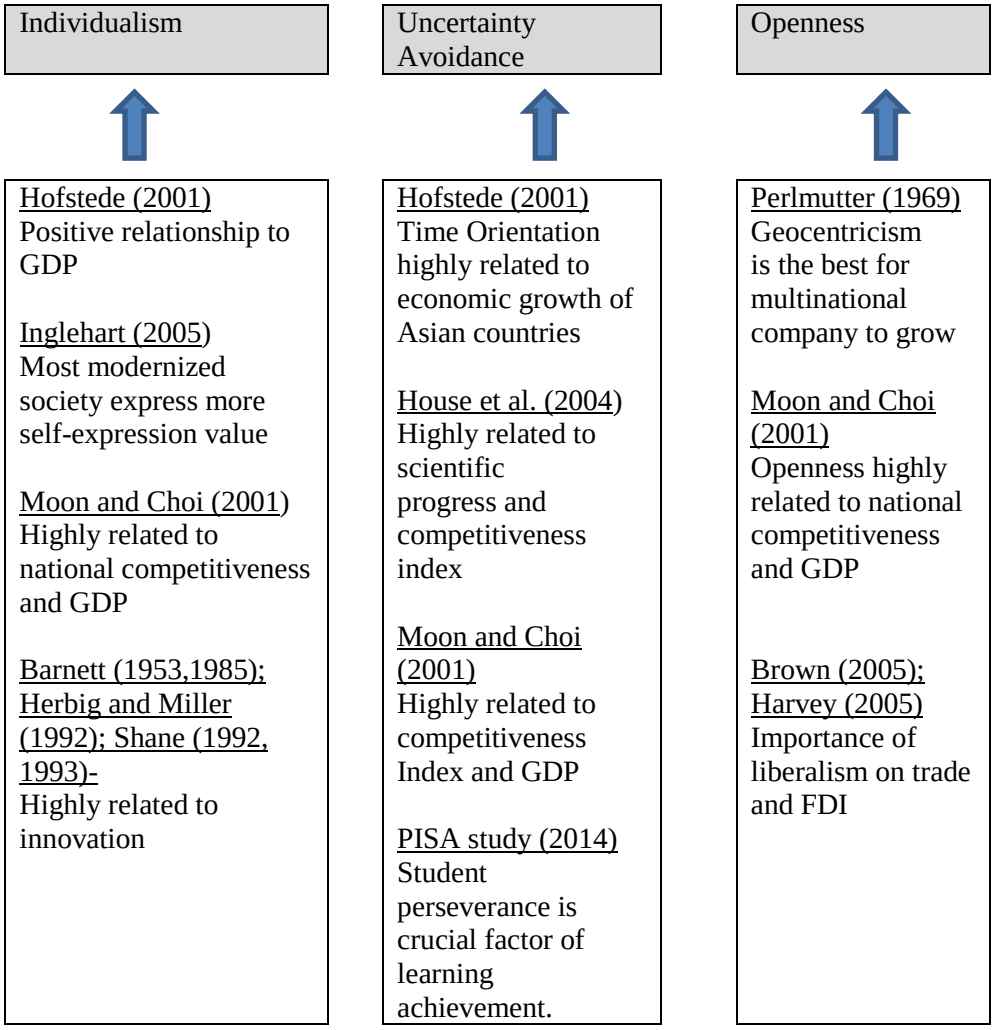
Masculinity dimension is overlapped with Individualism. By referring to the OUI model, this study selected the same three dimensions. However, some values of the Long Term Orientation such as planning, thrift and perseverance are incorporated in this study under the dimension of Uncertainty Avoidance. Values such as planning, thrift and perseverance are emphasized in high UAI culture because that is the way to cope with future uncertainties. Certain values of Masculinity dimension such as performance orientation is included in the Individualism dimension. In addition, UA values such as hard work, urge to be busy and time is money are somewhat overlapped with masculinity values; therefore Masculinity dimension is excluded from the model. Thus, the majority of the cultural dimensions could be incorporated in the dimension of Individualism, Uncertainty Avoidance and Openness as revealed in the Figure 3.6.

Figure 3.6 Current study's cultural dimension model, sub values and incorporations with other cultural dimensions



Further, several studies showed the importance of Individualism, Uncertainty Avoidance and Openness on a nation's competitiveness. For instance, Hofstede (2001) and Moon and Choi (2001) showed that Individualism is highly related to GDP per capita; and Barnett (1953, 1985); Herbig and Miller (1992) and Shane (1992, 1993) demonstrated that Individualism is highly related to innovation. Several studies (House et al. 2004; Moon and Choi 2001) revealed that Uncertainty Avoidance is highly related to national competitiveness index, to scientific progress in particular. Degree of Openness is also very significant as a determinant in trade openness and FDI inflow. Figure 3.7 summarizes findings in previous studies finding on each cultural dimension.

Figure 3.7 Previous studies finding on the relationship of cultural dimension with national competitiveness and economy



3.3.1 Definition of Individualism

Among the various cultural dimensions, Individualism-Collectivism dimension receives the most attention from among social scientists and business schools scholars, because this dimension have shown significant relationship with economy and important in understanding the differences in corporate cultural between the East and the West. Hofstede (1983) found that all the developed advanced nations have shown high Individualism in his survey studies. Hofstede's finding is consistent with the finding of Inglehart's study, which showed positive relationship between self-expression value and development stage of a nation. Although definition of Individualism-Collectivism is slightly different from the various studies, but overall this dimension values describe the individual relations with the existing collectivity in a given society.

Hofstede (1983, 2001) defined Individualism-Collectivism as the relative importance of individual vs group interest in society. According to Hofstede (1983), people in individualistic culture is supposed to look after his or her own interest and maybe the interest of his or her immediate family, while in collectivistic culture, people is supposed to look after the interest of his or her group. Individualistic society is loosely integrated while collectivistic society is tightly integrated where he or she gains protection from group members. Thus, in collectivistic societies, there is a sharp distinction between members of in-groups and out-groups. Triandis (1995) asserted that the quality of social interactions

between individuals in a collectivist culture depends heavily on whether or not they belong to the same in-group.

Trompenaars and Hampden-Turner (1998) also interpreted Individualism-Collectivism with similar meaning; the key question of this dimension is "Do people derive their identity from within themselves or their group?" This clearly affects individual attitude while interacting with in-group members and out-group members. For instance, trust within in-groups will be higher for collectivists than individualists. This explains the better openness attitudes to outsider in individualistic society compared to conservativeness of collectivistic society.

In House et al. (2004), Individualism dimension is defined in terms of the relative importance of individual versus group interest in society and the extent to which society encourages collective distribution of resources and collective action; the second definition is the extent to which individuals express pride, loyalty and cohesiveness in their organization and families. Moon and Choi (2001) defined Individualism as the degree to which a person is given responsibility and reward for performance on an individual basis. Overall, Individualism-Collectivism values explain how a society reacts to individual freedom, human right, achievement value, communication pattern, social relations, importance of duty and pride, reward system and power distance between the classes. Based on previous studies, basically both Malaysian and South Korean societies are categorized as collectivistic. According to the study by Hofstede (2001) and Moon and Choi (2001), South Korean is more collectivistic than Malaysian, which value highly on group harmony and

cooperative spirit. Value of loyalty, respect to senior people, harmony, stability and to make parents proud are the few key values in collectivistic society. Due to the importance of seniority and harmony relationship, people in collectivistic societies are integrated vertically (Hofstede 2001, p. 228). Relationship with family members should be very close with frequent contacts, and to make parents proud is important in collectivist society. Thus, one of the proxy values in this study is the importance of making parents proud compared to following own-wish and interest. Another proxy values for measuring Individualism-collectivism in this study is the importance of freedom of speech and stability. Individualistic society is supposed to value highly freedom of speech while collectivistic society emphasizes more on stability of society. The Table 3.4 summarizes the important norms of Individualism-Collectivism, derived from Hofstede (2001).

Table 3.4 Selected norms of Individualism-Collectivism

Individualism	Collectivism
Self-concept idiocentric	Self-concept in terms of group
Individual interest supposed to prevail over collective interest	Collective interest supposed to prevail over individual interests
Speaking one's mind is a characteristics of an honest person(freedom of speech)	Harmony should always be maintained and direct confrontation avoided.
Less conformity behavior	More conformity behavior
Personal opinion expected	Opinions predetermined by in-group
Weak family ties, rare contacts	Strong family ties, frequent contacts
Hiring and promotion decisions should be based on skills and rules only.	Hiring and promotion decisions take employees' in-group into account.
Employee perform best as individual	Employee performs best in in-groups.
Belief in individual decisions	Belief in collective decisions
In business, task and company prevail over personal relationship	In business, personal relationship prevail over task and company
Everyone has a right to privacy	Private life is invaded by public interests

Source: Hofstede (2001)

3.3.2 Definition of Uncertainty Avoidance

Dealing with uncertainty is fundamental in human experience. In Zen Buddhism, Buddhists are taught the truth we do not know because there is nothing which is permanent. Uncertainty is a basic fact of life, and we speak of uncertainty when 'anything might happen' or unknown events (Wennekers et al. 2007). Uncertainty is same as "ambiguity", in psychology, people are anxious for the things that are not under control. Hofstede (1983, p.81) stated that, "We have to live with uncertainty because the future is unknown and always will be." Some

societies socialize their members into accepting uncertainty and not becoming upset by it, but some societies socialize their people into trying to beat the future (Hofstede 1983, p.81). The different attitudes towards uncertainty affect the level of stress for a society (Hofstede 1980).

For high Uncertainty Avoidance society, strengthening ability to deal with uncertainty is essential, for example, saving money to deal with financial uncertainty in the future, subscribing insurance service, family planning, and etc. Uncertainty is different from risk, risk means the possibility of failure or mistake or loss, but uncertainty means unknown event that might happen. It includes the positive and negative type of unpredictable events, such as new technology product invention, natural disaster, financial crisis and changes of government policy. As uncertainty is a basic fact of life, learning to cope with uncertainty is essential. Ability to deal with uncertainty becomes an essential part of the survival process. To enhance one's ability to cope with uncertainty, Hofstede (1980) mentioned that human created technology, law and religion. Technology has helped human to defend themselves against uncertainties caused by nature; law, to deal with uncertainties in the behavior of others; religion, to accept the uncertainties human cannot defend (Hofstede 1980, p.154). For a technology company to survive sustainably in global business, persistent effort in the research and development of the latest technology is significant to protect ourselves against uncertainty. The highly competitive environment and ever increasing number of rivals indeed push the society towards higher and higher degree of Uncertainty Avoidance. In other words, the existential condition and

past experiences affect the level of Uncertainty Avoidance for individuals, company and nation. In brief, Uncertainty Avoidance is defined as the extent to which the members of a culture feel threatened by uncertain, unknown or ambiguous situation (Hofstede 1980; House et al. 2004).

Uncertainty study has received attention from researchers from a variety of fields, including sociology, psychology, finance, organizational behavior, and strategy (Edwin 2006). In cross cultural studies, Uncertainty Avoidance is one of the main cultural dimensions presented in the work of Hofstede (1980) and in the GLOBE project by House et al. (2004). Uncertainty Avoidance represents the collective willingness of a society to tolerate ambiguous outcomes. It refers to the extent to which people are made nervous by situations they consider to be unstructured, unclear, or unpredictable and the extent to which they try to avoid such situations by adopting strict codes of behavior and beliefs in absolute truths (Stohl 1993, p.103). In GLOBE project by House et al. (2004), Uncertainty Avoidance is defined as to the extent to which members of collectives seek orderliness, consistency, structure and formalized procedures, and laws to cover situations in their daily lives.

According to Hofstede (2001), people in high UA cultures look for structure in their organizations, institutions, and relationships, which makes events clearly interpretable and predictable. People in strong uncertainty avoidance culture only take known risk, and are active in controlling destiny, high UAI society also willing to take risky behavior if it helps to reduce ambiguities- such as starting a fight with an opponent rather than sitting back and waiting (Hofstede 2001). Thus,

countries with weaker uncertainty avoidance tendencies demonstrate a lower sense of urgency and slower pace of life (Hofstede 2001). People in such societies will not work as hard and accept each day as it comes (Hofstede 1983). Role of law and technology are highly emphasized in high UAI society. According to various studies (Hofstede 2001; Moon and Choi 2001), South Korean scored higher in UAI compared to Malaysia.

The term "Uncertainty Avoidance" is originated from Cyert and March's book entitled "A Behavioral Theory of the Firm (1963), but it is Hofstede who popularized the concept of Uncertainty Avoidance in social science literature. It is such a fundamental concept that it can be used to differentiate between cultures. For instance, Uncertainty Avoidance culture tries to beat the future, worry with unpredictable events, but uncertainty tolerance culture tends to accept each day as it comes, people will not work as hard, take risks rather easily and not becoming upset with uncertainty (Hofstede 1983). The following table present some values and norms of Uncertainty Avoidance based on Hofstede's book (1980, 2001).

Table 3.5 Selected norms of Uncertainty Avoidance

High Uncertainty Avoidance Culture	Low Uncertainty Avoidance Culture
The uncertainty inherent in life is felt as a continuous threat that must be fought	The uncertainty inherent in life is relatively easily accepted and each day is taken as it comes.
Worried about future	Willing to live day to day
Higher stress, anxiety	Ease, lower stress, less anxiety
Time is money	Time is free
Inner urge to work hard	Hard work is not a virtue per se
Need for written rules and regulations	There should be as few rules as possible
Rules should not be broken	Rules may be broken for pragmatic reasons
Only known risk are taken	Willingness to take unknown risk
Need for clarity and structure	Comfortable with ambiguity
Lower satisfaction score	Higher satisfaction score
Tolerance of diversity	Xenophobia
Tight societies	Loose societies

Source: Hofstede (1980, 2001)

After reviewing the existing studies, this study chooses the proxy values of thrift, independence, perseverance and importance of religious belief to measure the dimension of Uncertainty Avoidance. Uncertainty Avoidance society tends to be more future oriented, rules oriented and planning oriented. Time is very important; and therefore the society has a strong inner urge to work hard and achieving high performance. Because of higher stress level, uncertainty avoidance culture tends to be long term oriented which emphasizes stability, for instance saving money for future to ensure long term financial stability. Thus, in

uncertainty avoidance culture, people are assumed to be more frugal and conservative in spending. Uncertainty avoidance culture feels that the uncertainty in life is felt as a continuous threat that must be fought (Hofstede 2001). The readiness to engage in risky behavior is important in order to reduce ambiguities, such as starting a fight rather than sitting and wait; therefore stress is transformed into performance (Hofstede 2001).For achieving performance, being independent and persevering is important, it helps to maintain the ability in tackling sudden unknown events or risks, this includes any type of crisis, new threats and new change. Therefore, values such as thrift, independence and perseverance are chosen as proxy values for Uncertainty Avoidance measurement. For measuring Uncertainty Acceptance culture, it is believed that uncertainty acceptance society is more religious compared to uncertainty avoidance society. When human are unable to defend themselves against uncertainty, humans tend to explain it as the result of “fate” or “arrangement of God”. Indirectly it makes human accept uncertainty more easily. For uncertainty avoidance culture, people believing in controlling own destiny, therefore working hard to enhance the ability to tackle future uncertainty is important. The ability of dealing with uncertainty includes the capacity of technology, knowledge, financial strength and skill.

3.3.3 Definition of Openness

Openness is the third cultural dimension in this cultural model. In today's globalized age, openness is important to ensure a country is keeping pace with global trend. Hofstede's cultural dimension model does not have this dimension. This dimension is derived from Moon's OUI model (2004). Moon has shown that openness demonstrates positive relationship with competitiveness level. It means that if a country wants to be more competitive, they should be more open. Moon measured openness by using Aggressiveness (tendency to push home country values abroad, quick adaptation to international changes and global standard) and Attractiveness (willingness to accept foreign values, culture and new ideas, equal treatment, job openness). Aggressiveness is openness of outbound orientation while attractiveness is openness of inbound orientation. Moon (2004) demonstrated that openness is important in the early stage of development. The paper focuses on the values of willingness to change and to accept foreign values, culture, knowledge and different ideas, equal treatment to in-group (own people) and out-group (outsider/foreigner), following trend in globalization and liberalization which accept the international changes and quick adapt to new global standard. Low openness means conservative, reluctant to change, protectionism, reject free competition and anti-liberalization.

3.4 Cultural Dimension's Measurement and Difference from Existing Studies

Although this study uses the cultural dimension proposed by Moon and Choi (2001), the main difference between this study and Moon and Choi (2001) is that of the data set and measurement. Moon and Choi (2001) used the statistical data set from the "IPS National Competitiveness Report" as cultural variable data source but this study uses World Values Survey data (year 2005-2009) as the cultural variable data source. By using different data set, this study tested the cultural relationship with several aspects of national competitiveness. Due to the differences in data set, sub-values of measurement for each cultural dimension are also different from Moon and Choi (2001). In short, this study selects dimensions that can be measured from currently available data source as well as dimensions that may associate strongly with certain aspects of nation competitiveness.

A few areas of competitiveness were tested with cultural dimension and not as comprehensive as OUI studies with more cultural variables for each cultural dimension. Although the World Values Survey (2005-2009) consists of 265 value survey questions; however, there is limitation in terms of question choices as proxy variables for Individualism, Uncertainty Avoidance and Openness. Since Malaysia has only started to participate in the World Values Survey from 2005; therefore wave of 2005-2009 is selected as data source. After reviewing all the 265 survey questions, the most suitable survey questions are chosen as the proxy

variables for each cultural dimension. Table 3.6 summarizes the key point of similarities and differences from Moon and Choi's (2001) OUI studies.

Table 3.6 Similarities and differences from Moon and Choi's (2001) OUI studies

Similar in term of main theory argument		
Argument 1	Majorities of dimensions can be incorporated into dimension of Individualism, Uncertainty Avoidance and Openness	
Argument 2	Individualism, Uncertainty Avoidance and Openness highly related with national competitiveness	
Differences in term of research methodology		
	Moon and Choi (2001); Moon (2004)	This study
Cultural variable data (X variables)	IPS National Competitiveness report, KOTRA	World Values Survey (2005-2009) Soft data
Performance variable data (Y variables)	GDP per capita Single competitiveness index for each dimension	GDP per capita, different area of competitiveness index for each cultural dimension, for instance Innovation with Individualism, FDI with Openness.

In short, there are three cultural dimensions used in this study; namely Individualism/Collectivism, Uncertainty Avoidance, and Openness. This study

investigates how these cultural values affect various aspects of national competitiveness. This paper does not intend to identify a two-way relationship regarding how economic influences change values or vice versa. The focus of this paper is the identification of a linear relationship from values to national competitiveness. The value data is obtained from the WVS (2005 – 2009), which consist of 265 value survey questions. Out of the 265 survey questions, only the most suitable survey values questions were chosen as cultural proxy variables for measurement. The performance data's time frame is also of a similar period in accordance with the value data.

CHAPTER 4: QUANTITATIVE RELATIONSHIP ANALYSIS AND FINDING

To investigate the relationship between cultural values and national competitiveness, a statistical relationship test was conducted across many countries. Cultural values are organized through a cultural dimension model. The first cultural dimension is Individualism, the second is Uncertainty Avoidance (UA), and the third is Openness. The population size ranges from 32 to 54 countries, depending on the availability of both the value and competitiveness performance data for each cultural dimension. Value data was obtained from the World Value Survey (2005 – 2009), while the competitiveness performance data was obtained from various sources; such as the World Development Indicator, WIPO statistics, PISA, etc. Because the value data is from years 2005 – 2009, competitiveness performance data was selected from the similar period.

4.1 Hypotheses

In this study, it is assumed that cultural values are positively correlated with national competitiveness. Each cultural dimension is assumed to be highly correlated with a certain aspect of competitiveness; such as innovation capacity, education achievement, R&D investment, Foreign Direct Investment (FDI) attraction and trade openness. This study does not use a single national competitiveness index, but examines competitiveness from area range of

perspectives. For instance, this study examines the relationship between Individualism and innovation; UA and R&D investment, and education performance; and Openness with FDI openness (inflows), and trade openness. However, the relationship between each cultural dimension with GDP per capita was also tested to examine the cultural relationship with economic performance as an overview picture.

4.1.1 Relationship between Individualism/Collectivism and national competitiveness

The core values of individualism are freedom, competition, individual autonomy, and flexibility. Thus it is assumed that Individualism is positively correlated with innovation because of the values it promotes. The creative and critical thinking emphasized in individualist societies' educational philosophies have played a significant role in building innovation capacity. Collectivist cultures highlight the importance of hierarchy, vertical communication patterns, and resistance to change in the distribution of power; thereby discouraging flexibility and creativeness through rigid stratification, centralization of power, and top-down control which suppresses the innovative process. In contrast, the low power structure in individualist societies, including a less formal hierarchy of authority and control, greater decentralization of knowledge and responsibility, is expected to be associated with innovation.

As pointed out in previous studies (e.g. Shane 1993; Moon and Choi 2001), individualist societies reward based on personal effort and hard work, which leads to the development of new ideas, new inventions, and fast improvements in technology. A study by Shane (1992, 1993) showed that individualism is related to a high rate of innovation. The study found that individualistic and non-hierarchical societies are more inventive than other societies. Shane (1993) highlights the effects of hierarchical structures as having a mitigating effect on inventiveness. Hierarchical cultures discourage innovation because they restrict the free flow of ideas and communication between superiors and inferiors. In a collectivist hierarchical culture, management is usually centralized with authoritarian leadership. This leadership style restricts innovation growth due to the excess of rules and tight controls from top management. To encourage innovation and creativity, freedom of expression and communication is crucial. Shane (1992) stated that;

> …individualistic societies do not stress loyalty to the extent that collectivistic societies do, so they are able to gather more information necessary for invention…Inventors need to be compensated for their inventions monetarily and with recognition. This is more likely in individualistic societies, which are more willing to single people out…Characteristics of independence, achievement, and non-conformity, which have been found to encourage innovation, are all more common in individualistic societies (p.29).

Schwartz (1994), after studying cross-cultural values in over 30 countries, also suggested that Individualism is positively correlated with valuing affective autonomy (i.e. a varied and fun life) and intellectual autonomy (i.e. curiosity), and is negatively correlated with conservatism (i.e. valuing tradition) (Schimmack, Oishi and Diener 2005, p. 4). Therefore, affective autonomy and intellectual autonomy are the important values that encourage innovation. Herbig and Miller (1992) also suggest that higher order innovation thrives in individualistic societies. The table below shows some previous studies' finding on the Individualism influences on Innovation activities which quoted from Jones and Davis (2000).

Table 4.1 Previous studies of Individualism and innovation relationships.

Study (Focus of Research)	Influence of Individualism
Barnett (1953) - Innovative capacity	High
Barret (1985) - Innovative capacity	High
Herbig & Miller (1992) - Sourcing innovation capacity, higher order(radical)innovations	High
Mokr (1991) - Innovative capacity	High
Shane (1992, 1993) - Innovation	High

Source: Quoted from Jones and Davis (2000)

A study by Hofstede (1980) reported similar findings. Wealthy and innovation driven economies such as United States, Australia, United Kingdom, Germany, and other Western Europe countries are individualist cultures. Thus,

this study assumes that individualism is positively associated with national innovation.

4.1.2 Relationship between Uncertainty Avoidance and national competitiveness

To study the relationship between the UA dimension and national competitiveness, a culture of UA is assumed to be positively associated with several aspects of national competitiveness; such as R&D investment, academic achievement and GDP per capita. UA espouses rules, orderliness, preciseness, accuracy, planning, saving, long-term investment, and hard work; values believed to strengthen economic productivity. Sub-values indicative of a culture high in Uncertainty Avoidance include future orientation, rules orientation, and emphasizing stable performance over the long-term. Planning, rules, saving, education, hard work, and the development of new technology help to improve the ability to deal with uncertainty.

Several studies would suggest that UA has a significant influence on a nation's economic development. For example, Hofstede (1980) found that UA was positively correlated with economic growth for wealthy countries during the 1970s. The GLOBE project (House et al. 2004) found that the greater the degree to which a society avoids uncertainty, the greater the economic prosperity, scientific progress, and world competitiveness index. The more formalized and structured an economy is, the more competitive it is in the global environment.

The study also found that societies with a propensity of uncertainty-avoiding mechanisms tend to enjoy a higher quality of life and higher overall development. Moon and Choi (2001) also reported that the higher the degree of UA, the better the economic performance. Societies high in UA not only emphasize discipline, rules, and punctuality; but also value new ideas and development of new skills and strengths. The development of new ideas, skills, and strengths contributes to having greater resilience in dealing with uncertainty.

Several studies found that a culture of UA is related to high rates of technology invention. Uncertainty might be defended against though mastery over the environment by creating new technologies. Hofstede (2001, p. 146) stated that, "technology is primary mechanism to defend ourselves against uncertainties caused by nature, and rules helped to defend against uncertainties in the behavior of others". In high UA cultures, people take threats from nature seriously, therefore science and technology development is emphasized. In low UAI cultures, people embrace the ideas such as "some things are meant to be," or "easy come, easy go." They do not try to control nature, but rather "go with the flow," absorbing and mixing in with the surrounding environment (Moon and Choi 2001, p. 27). Low UAI cultures tend to accept fate and rely on religion to deal with uncertainty.

Hofstede (2001) observes that UA is distinguished from risk avoidance. Risk means when "things may fail" or "chance of a mistake," but uncertainty refer to "anything that might happen." Examples of uncertainty include new inventions in technology, changing of consumer references, new government

policy, natural disasters and etc. Thus, ability to deal with risks and opportunities is highly valued in UA societies where people are ready to engage in risky behaviors and to fight back rather than sitting and wait (Hofstede 2001). Once innovations are accepted, even if initially restraint by rules, they are taken more seriously than they would be in low UA countries (Hofstede 2001). Thus, frontierism is observable in high UA societies (Moon and Choi 2001). Frontierism is the mindset to invent and invest in building a more certain future (Moon and Choi 2001). It is the willingness to change and to create something better in order to avoid future uncertainty (Moon and Choi 2001). Hofstede (2001) is not alone in demonstrating the importance of technology creation in high UA societies. House et al. (2004) also notes the positive relationship between scientific progress and UA based on the GLOBE study findings. Javidan and Luque (2004, p. 603) stated;

> …In societies, uncertainty-reducing technologies may take the form of a service such as product warranties, insurance policies or investment market and plans. Technologies developed to handle uncertainty may include medical devices, security systems, and etc. Technology, rules, policies, and rituals are all means used by organizations to deal with uncertainty…

Making rules, long-term planning, technology, and hard work are important ingredients in successful economic development. Several studies support this point (Moon and Choi 2001; House et al. 2004). Thus, it is assumed that UA is positively associated with R&D investment.

To deal with uncertainty and threats to their survival, people need to be diligent. Hofstede (1980, 2001) and House et al. (2004) note that the degree of UA affects the value of "hard work" in a society. The inner urge to work hard and to be busy is an UA societal norm, and hard work is not a given in low UA societies (Hofstede 2001). Moon and Choi (2001, p. 30) argue that high UA societies not only keep the rules and are diligent, but also develop new skills and abilities. The PISA (2013) study shows that students' perseverance attitudes are positively associated with academic test scores. Therefore, high UA cultures are assumed to rank higher in education performance due to greater determination and hard work.

4.1.3 Relationship between Openness and national competitiveness

The third cultural dimension, Openness, is derived from Moon and Choi's (2001) OUI model. Openness is assumed to be positively associated with a nation's trade openness and FDI inflow. Openness values the liberalism that has been promoted in the political economy since the 18th century. Adam Smith, in his book, "The Wealth of Nation," suggested that values of free exchange and free competition are important for a nation to generate wealth. A nation's economy grows best in an open, competitive marketplace, without coercion. Thus, a free market with minimal government intervention should be pursued for higher growth. Openness not only guarantees the improved growth of nation, but of a firm. For instance, a study by Perlmutter (1969) highlights the importance of openness in the business

world. Perlmutter's Ethnocentric-Polycentric, Geocentric (EPG) model suggests that geocentricism should be the ideology accepted by any corporation operating globally. Through openness, a geocentric firm does not show bias to either home or host country preferences, but rather spotlights the significance of doing whatever it takes to better serve the organization. Global talents are recruited without concern for national background. This ensures the contribution of new knowledge and skill, and therefore, sustainable growth. Moon and Choi (2001) demonstrated that openness is a significant component of nation competitiveness, particularly in relation to foreign direct investment activities. Thus, this study assumes that openness is positively associated with both national trade openness and FDI inflow.

In summary, there are three cultural dimensions explored in this study's model; namely Individualism/Collectivism, Uncertainty Avoidance (UA) and Openness. Each of these dimensions is assumed to be positively associated with certain aspects of competitiveness as mentioned above.

4.2 Previous Measurements of Cultural Dimension

One of the most significant differences between this study and existing studies (e.g. Moon and Choi 2001; House et al. 2004) is the measurement and index calculation of cultural dimensions. By using the latest available data from the World Value Survey (2005 – 2009), this study retests the finding of previous studies by using new value data and new instruments. Previous studies by

Hofstede (2001), House et al., (2004), and Trompenaars (1998) have proposed cultural models with overlapping of dimensions, but all have used different instruments to measure the same dimensions.

4.2.1 Measurements of Individualism-Collectivism

To measure the dimension of Individualism-Collectivism, Hofstede (2001) used four value items from an IBM staff survey; namely importance of sufficient personal time on the job, jobs with variety and adventure, security of employment, and physical working conditions. "Sufficient personal time on the job and jobs with variety and adventure" represent the value of Individualism, while "security of employment and physical working conditions" represent the value of Collectivism. However, there are several versions of the survey questions in Hofstede's study based on different periods; therefore the survey questions used for measurement also differ slightly across different research years. For instance, in Value Survey Module (VSM 80) (Hofstede 2001, p.492), the formula for the Individualism Index was as follows:

Individualism Index= − 27 × (mean score A6 (importance of desirable area in job)
+ 30 × (mean score A8 (importance of cooperation in job)
+ 76 × (mean score A12 (importance of physical condition in job)
− 43 × (mean score A18 (importance of personal time in job)
− 29 (= constant)

In House et al.'s (2004) Globe project, the value items used to measure Individualism-Collectivism are different to those used by Hofstede (2001). The first survey question used in the GLOBE project for measuring Individualism-Collectivism concerns whether a culture should value group interests over individual interest, and the second survey question is whether, "children should take pride in the individual accomplishment of their parents vs. parents should take pride in the individual accomplishment of their children" (p. 464). In individualist cultures, people are freer to decide their own life targets and pursue their dreams, while in collectivist cultures people tend to fulfill the wishes of their parents and pursue making their parents proud as an important goal. In Moon and Choi's (2001) study, Individualism is defined as the degree to which a person is given responsibility and reward for performance on an individual basis. Therefore, the reward systems and responsibly of individuals or group are the proxy values for measuring the level of individualism in a society.

In this study, based on the World Value Survey 2005 – 2009 data, the survey questions used for measuring the Individualism-Collectivism are, "I seek to be myself rather than follow others," and "Importance of freedom of speech," representing the value of Individualism; and "My life goal is to make my parents proud," and "Importance of maintaining national order," representing the value of collectivism.

4.2.2 Measurements of Uncertainty Avoidance

To measure the degree of UA of a society, different studies embrace different methods and variables due to different interpretations. Major influential works are from Hofstede (1980, 1983 and 2001) and the GLOBE research project. Hofstede's work is based on 116,000 questionnaires, collected between 1967 and 1978, from IBM employees across 40 countries. The other major study, by House et al. (2004), the Global Leadership and Organizational Behavior Effectiveness (GLOBE) research project, is focused at the organization and societal levels, reports from a sample of middle manager survey respondents across 62 societies (countries). UA is one of eight cultural dimensions examined by the GLOBE program.

Hofstede (2001) argues that at the country level, higher mean stress is associated with having a stronger rule orientation and greater employment stability. Therefore, for measuring the degree of UA, Hofstede (2001) selected three items from IBM archives for his study; rules orientation, employment stability, and stress. The first question in the Hofstede's UA scale asked respondents to rate their agreement with the statement that rules should never be broken, even if it is in the best interests of the company to do so. Having a higher rule orientation aggregated at the societal level raises the UA. The second item asked respondents to estimate the amount of time they planned to stay in the employment of the company. The longer they planned to stay, the higher their desire for employment stability, and the higher the UA. The third item asked

respondents to indicate how often they felt nervous or tense at work. The greater stress levels reported at the societal level, the greater the degree of UA. Hofstede (2001, p. 148), cautions that he had used the IBM data to compose his questionnaire in 1967, and that it was possible that other, and perhaps better, survey indicators of national levels of UA might be developed.

Since Hofstede published his work, the concept of UA has been widely discussed with academia, and his measurement method has received much criticism. Luque and Javidan (2004, p. 609) note that Hofstefde's work on UA creates the impression that UAI may be a better measure of stress than more generalized measures of Uncertainty Avoidance. The employment stability question is inappropriate to test the importance of employment stability. Tayeb (1994, p. 234) comment that Hofstede's study suffers from an inevitable bias (i.e. American ownership and types of job), and as a consequence his samples are not representative of their respective countries. Although Hofstede's work has been subjected to a barrage of criticism, he was, nonetheless the first researcher to popularize the concept of Uncertainty Avoidance as a construct to differentiate between societies and to gain insight into the collective behavior of cultures (Edwin 2006).

In the GLOBE Project, Uncertainty Avoidance was defined in terms of a tendency toward orderliness and consistency, structured lifestyles, clear delineation of social expectations, and rules and laws to regulate uncertain situations (House et al. 2004). Uncertainty Avoidance is examined as an aspect of practices and values at both societal and organizational levels. House et al. (2004)

demonstrated that it is necessary to examine values and practices separately. For measuring practices, of the phrase "as is" is used, and for measuring values, the phrase "should be" is used when composing the question. The data analysis found that the Pearson correlation between the GLOBE societal Uncertainty Avoidance practices and GLOBE societal Uncertainty Avoidance values was negative (r = -62, p< .01) across the 61 GLOBE cultures used in the analysis (House et al. 2004, p. 621). Four items were used to measure the level of Uncertainty Avoidance practice and value in the questionnaire, these four items referred to orderliness and consistency, details of requirements and instruction, highly structure, and rules and law. The GLOBE study did not include the variables stress or employment stability as Hofstede had done earlier.

Hofstede (2001, p. 145) commented that, "uncertainty about future is a basic fact of human life with which we try to cope through the domains of technology, law and religion". Norms of Uncertainty Avoidance include hard work, preciseness, orderliness and planning. The high-UAI society seeks clarity, structure, and purity; the low-UAI society is comfortable with ambiguity, chaos, novelty, and convenience (Hofstede 2001, p. 161). But in his questionnaire, Hofstede (2001) only asks three questions, vis-à-vis employment stability, stress, and rules, to measure Uncertainty Avoidance. Definitely, it is not enough to reveal the full picture of Uncertainty Avoidance; other variable such as the development of technology to defend against the uncertainty of nature, future planning, time context, hard work, and preciseness were not tested. To make the measurement more comprehensive, Moon and Choi (2001, p. 29) added a new

variable to measure UAI. The new variable is frontierism which is related to offensive side of Uncertainty Avoidance. Frontierism includes the sub-variables of innovation, new ideas, risk taking, and entrepreneurship. Hofstede (2001, p. 148) later revised his work to better distinguish uncertainty from risk. In order to reduce anxiety, a high-UAI society stands ready to engage in risky behavior, to fight back rather than sit and wait (Hofstede 2001, p. 148). Once innovations are accepted, they are taken more seriously than in low-UAI countries (Hofstede 2001). Thus, frontierism is emphasized in high-UAI societies.

In this study, the proxy values for measuring Uncertainty Avoidance are slightly different. Based on the World Values Survey data, this study focuses on thrift - indicative of discipline and future oriented attitudes, determination - indicative of hard work, perseverance – indicative of a focus on long-term performance, and independence - indicative of self-ability and self-sufficiency over dependence on others; for representing the value of Uncertainty Avoidance. The importance of religion is chosen to represent uncertainty acceptance culture. It is believed that highly religious societies tend to accept uncertainties more easily through belief in a god.

In uncertainty avoidant cultures, long term performance is emphasized which can be seen in their attitudes toward saving money for the future, and in the importance of independence and determination to deal with uncertainty in a challenging world. For a society which tends to accept uncertainty, a strong belief in an unexplained power and religion is one way to deal with uncertainty. Believing in fate and subordinating oneself to a god or gods helps a society to

accept uncertainty more easily. However, for an uncertainty avoidant culture, depending on oneself is a more effective way to cope uncertainty. High-UAI cultures value individual efforts, for instance, by creating new technologies for coping with natural limitations, and work hard to enhance one's ability of coping with uncertainty or any new challenges that may arise in the future.

4.2.3 Measurements of Openness

Among the cultural studies, the study of Moon and Choi (2001) highlighted the importance of a culture of openness in enhancing national competitiveness. In their study, the proxy variable for measuring the level of openness of a country was composed of six variables, namely the adaptation of firms to international change, readiness for international competition, willingness to accept new ideas, equal treatment of domestic and foreign firms, competitiveness of foreign entrepreneurs, and openness of professional jobs to foreigners. Unlike other studies which have used survey questions as the measurement instrument, Moon and Choi (2001) used the IPS's hard data as the data source for measuring the cultural dimension. In this study, the proxy variables for measuring the level of openness of a society are taken from the World Value Survey (2005 – 2009); namely the "level of trust for foreigners" and the "level of willingness to have a different race as a neighbor". Openness attitudes toward outsiders are significant indicators of the level of openness of a culture. The Table 4.2 summarizes the measurement of each dimension and its difference from existing studies.

Table 4.2 Measurements of each cultural dimension and comparison with existing studies

Dimension	This study		Hofstede (2001)-VSM 94		House et al. (2004)	
	Proxies for measurement	Value data source	Proxies for Measurement	Value data source	Proxies for measurement	Data source
Individualism	+Seek to by myself rather than follow others +Importance of freedom of speech -Life goal is to make parents proud -Importance of maintaining order of nation	World Values Survey (05-09) Respondent : Public (sample size around 1000 for each country)	+ jobs with sufficient personal time + variety and adventure in the job - have security of employment - have good physical working conditions	IBM's staff's survey	Individual interest vs group loyalty/interest Children should take pride in the individual accomplishment of their parents vs Parents should take pride in the individual accomplishments of their children (p.464)	Value and Practices survey to 61 countries' mid-level managers
Uncertainty Avoidance	+Independence (Self ability) +Thrift (disciplines) +Determination & Perseverance (performance)		+Stress level + Job stability + Rules		Orderliness and consistency, details of requirements and instruction, highly structured	

	- Religiosity (accept undefended uncertainty)		Moon and Choi (2001)	source	and rules and law	
			Disciplines (order, rules) Frontier (future)	Hard data from IPS National Competitiveness Report (2000)		
Openness	+Trust level to foreigner - Would not like to have different race as neighbor		Moon and Choi (2001)	source	N/A	N/A
			-adaptation of firms to international changes, readiness to international competition, willingness to accept new ideas , equal treatment of domestic and foreign firms, competitiveness of foreign entrepreneurs, openness of professional jobs to foreigners	Hard data from IPS National Competitiveness Report (2000)		

4.3 Index Calculation of Each Cultural Dimension

After reviewing the previous studies' measurement of each cultural dimension, this study selected suitable value variables from the World Values Survey (2005-2009) to measure dimension of Individualism, Uncertainty Avoidance and Openness. The index calculation methodology is explained in the following section.

4.3.1 Individualism Index (II) calculation method

To construct the Individualism Index, four value variables are taken from the 5th wave of World Values Survey (2005 – 2009); namely the "importance of protecting freedom of speech" vs. "maintaining order in the nation", and "goals in life should be to seek to be myself rather than to follow others" vs. "to make my parents proud". The "importance of protecting freedom of speech" and "goal in life should be to seek to be myself" represent the values inherent in Individualism; while the importance of "maintaining order in the nation" and "goal in life is to make parents proud" represent values inherent in Collectivism. Therefore, cultures which emphasize the values of individualism score higher, while, societies which value collectivist values score lower.

The formula for calculating the index is as follows:

Individualism Index Formula

= 65 + (percentage of mentioning "freedom of speech" in question V.71)

− (percentage of mentioning "maintaining order" in question V.71)

+ (percentage of strongly agree or agree with "seeking to be myself rather than follow others as important life goal" in question V.65)

− (percentage of strongly agree or agree for "seeking to make parents proud as important life goal" in question V.65)

To make the index range above zero, 65 points are added as constant to the total Individualism index score. The range difference between v.71 and v.64 – v.65 is only 0.6%, therefore no adjustment is needed since the score range is similar. To correct the influence of acquiescence, each dimension's index calculation accommodates positive and negative values. Individualism values get positive points, while collectivism values get negative points. This method of index construction controls for the tendency of respondents in some societies to place relatively heavy emphasis on certain type of answer choice, while respondents in other countries mention relatively few of them. For instance, Japanese tend to choose moderate answer (e.g. agree, slightly agree) and avoid answering strongly (e.g. agree strongly, disagree strongly). By allowing for

positive and negative values in same type of answer choice (e.g. strongly agree), this can provide a fairer picture. The questionnaire items for individualism, selected from the WVS 2005 – 2009, are shown below:

v.71: If you had to choose, which one of the things on this card would you say is the most important? And which would be the next most important? First choice:

Possible answers:

1. Maintaining order in the nation
2. Give people more say
3. Fighting rising prices
4. Protecting freedom of speech

v.64 & v.65: People pursue different goals in life. For each of the following goals, can you tell me if you strongly agree, agree, disagree or strongly disagree with it?

v.64: One of my main goals in life has been to make my parents proud

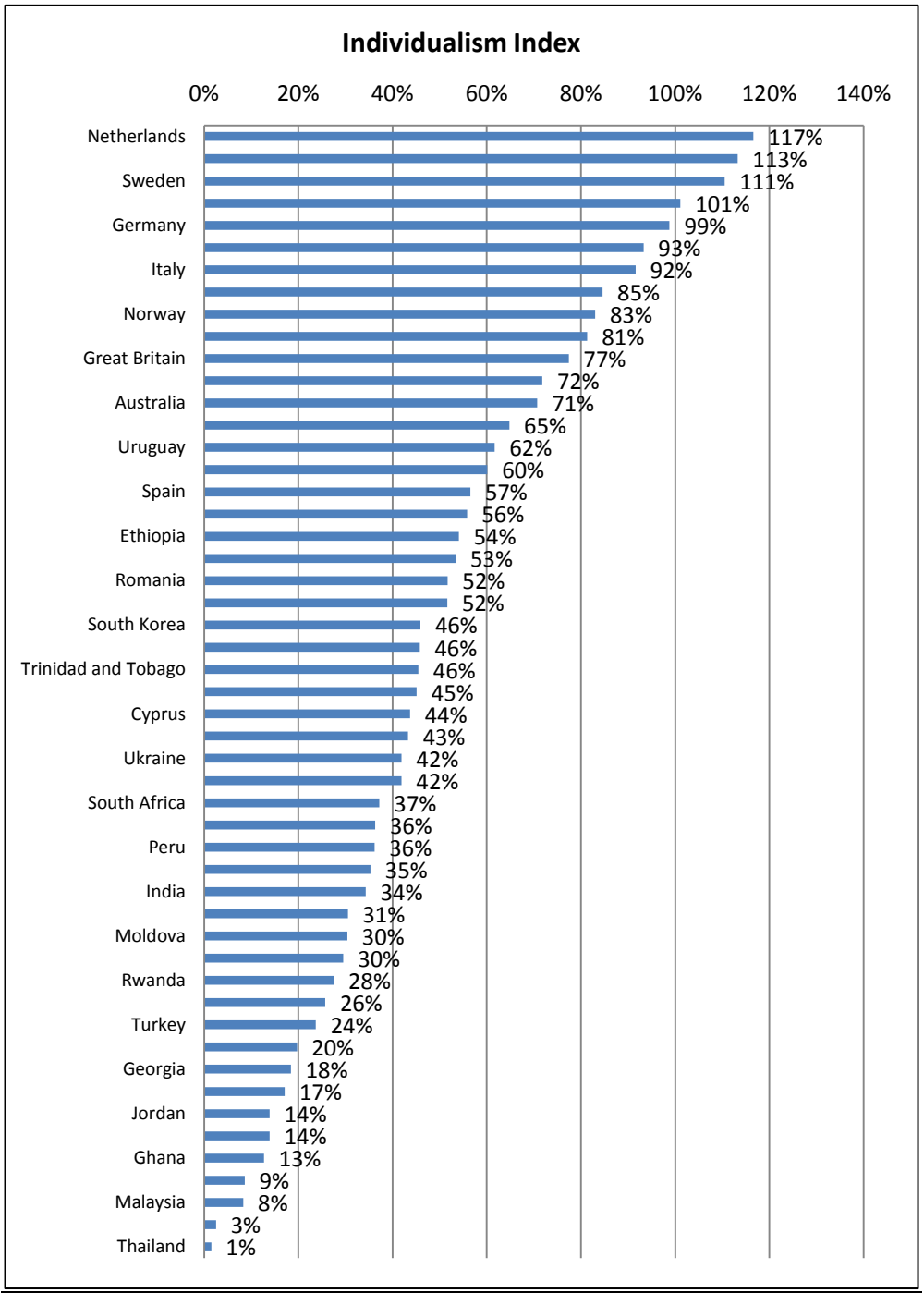
v.65: I seek to be myself rather than to follow others.

Possible answers:

1. Agree strongly
2. Agree
3. Disagree
4. Strongly disagree

After adding all the scores for 51 countries, the result shows that the top individualist societies are mainly from Northern Europe, North America, and Australia. Latin American cultures are moderately individualist, while collectivist societies are mainly from the Asian region. Figure 4.1 exhibits the Individualism score index for 51 countries.

Figure 4.1 Individualism Index



4.3.2 Uncertainty Avoidance Index (UAI) calculation method

Uncertainty Avoidance represents the collective willingness of a society to tolerate ambiguous outcomes. It refers to "the extent to which people are made nervous by situations they consider to be unstructured, unclear, or unpredictable, and the extent to which they try to avoid such situations by adopting strict codes of behavior and beliefs in absolute truths" (Stohl 1993, p. 103). In the GLOBE project by House et al. (2004), Uncertainty Avoidance defined as to the extent to which members of collectives seek orderliness, consistency, structure and formalized procedures, and laws to cover situations in their daily lives. In brief, Uncertainty Avoidance is defined as the extent to which the members of a culture feel threatened by uncertain, unknown, or ambiguous situation (Hofstede 1980; House et al. 2004).

To construct the Uncertainty Avoidance index, four value items were selected from the WVS (2005 – 2009) for measurement; namely importance of thrift, independence, determination, and religious faith. High uncertainty avoidance societies tend to save more for coping with future financial uncertainty, invest more in technology R&D for dealing with nature and competition uncertainty, and invest in education for long term ability and performance. Low uncertainty avoidant societies are assumed to be more present-oriented, religious, flexible, and easy going when dealing with life uncertainties. Low uncertainty avoidance is associated with a tendency to accept uncertainty through religious beliefs or believing in fate, compared to high uncertainty avoidance cultures

which try to decide their own destiny. Thus, enhancing the ability for dealing with future uncertainty is highly emphasized in a high uncertainty avoidance society. To make the Uncertainty Avoidance index, thrift, determination, and independence are seen in the context of this study as values indicative of high uncertainty avoidance culture; while strong religious beliefs in an important value in uncertainty acceptance cultures. Therefore, to get the total index score, the total percentage of choosing thrift, determination, and independence, as important childhood qualities is added, then subtract the percentage mentioning religious beliefs. The formula of index calculation for the Uncertainty Avoidance Index (UAI) in this study is as follows:

UAI = 15+ (Percentage of V12 (independence), V17 (thrift), and V18 (determination) − Percentage of mentioned V19 (religious faith) as important child quality)

To make the index range above zero, 15 points is added as a constant to the total index score. The following shows the questionnaire detail.

Survey items selected from World Value Survey 2005 – 2009

Child qualities

V12_21: Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important?

Possible answers:

(V12) independence

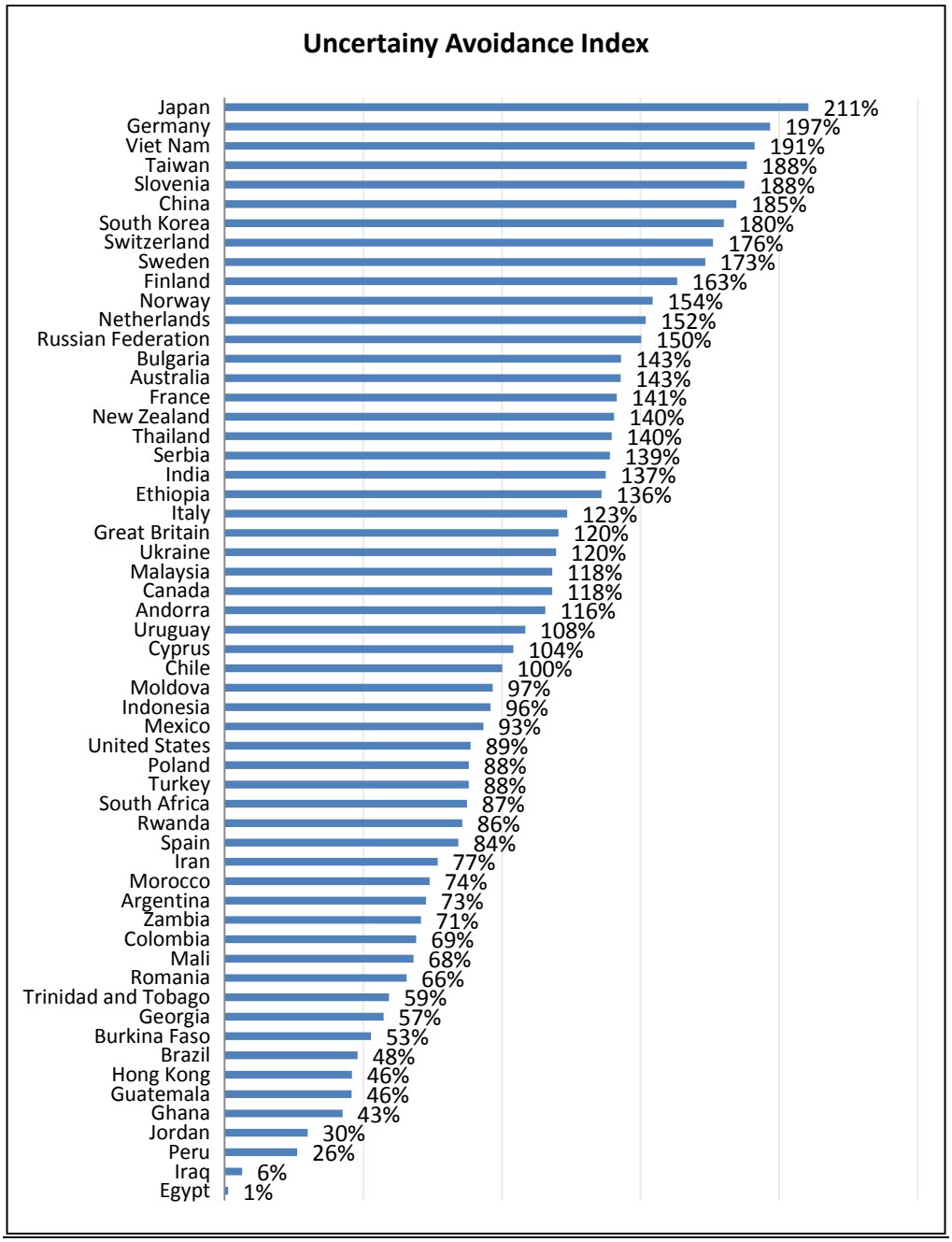
(V17) thrift saving money and things

(V18) determination perseverance

(V19) religious faith

After adding all the scores for 51 countries, the results show that the top Uncertainty Avoidance societies are mainly North East Asian countries (e.g. China, Japan and South Korea) and Northern European (e.g. Germany, Slovenia, Switzerland, Sweden, Finland, Norway). Low uncertainty avoidant countries are mainly resource rich countries, such as Brazil, Peru, Iraq and Egypt. High uncertainty avoidant cultures tend to be located in resource scarce regions and temperate climate zone; this shows that the nature environment has a significant relationship with one culture formation. This finding is consistent with House et al.'s (2004) research findings. Figure 4.2 exhibits the Uncertainties Avoidance score index for 57 countries.

Figure 4.2 Uncertainty Avoidance Index



4.3.3 Openness Orientation Index (OOI) calculation method

For calculating the Openness Orientation Index, two value variables were selected from the WVS (2005 – 2009); namely percentage of people who choose to trust foreigners (i.e. trust completely or trust a little), and percentage of people choosing that they would not like to have different race as a neighbor. A society that chooses to trust a foreigner reflects their attitude of openness to foreigners; while people who would not like to have different race as a neighbor reflect the conservativeness of their culture toward outsiders. The higher the index score, the more open the society. The formula is as follows:

Openness Orientation Index

= 50+ percentage of agree with v.130 (i.e. trust of foreigner) − (1.5266* percentage of agree with v.35 (i.e. dislike other race neighbors)

The survey questions were as follows:

v.130: I would like to ask you how much you trust people from various groups. Could you tell me for each whether you trust people from this group completely, somewhat, not very much or not at all? (Read out and code one answer for each)

(v.130) Trust: People of another nationality

Possible answers:

1. Trust completely
2. Trust a little
3. Not trust very much
4. Not trust at all

-1. Don´t know

-2. No answer

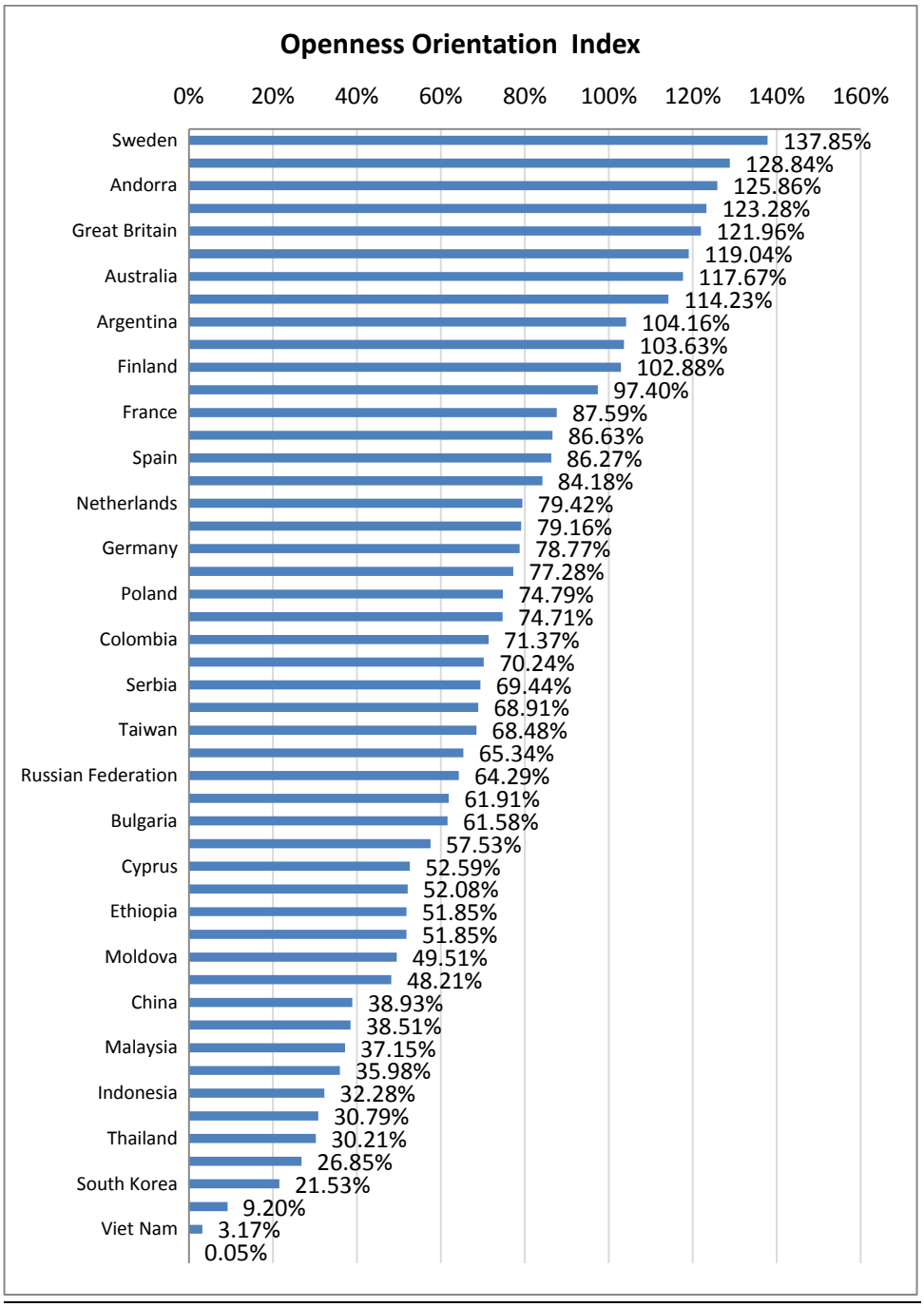
v.43MD: On this list are various groups of people. Could you please sort out any that you would not like to have as neighbors?

(v.35) People of a different race

To make the index range from above zero, 50 point is added as a constant to the total index score. To make the range at the same level between (percentage v.130 mentioned 1 and 2) and (percentage mentioned v.35), the percentage mentioning v.35 is multiplied by 1.5266. The total number of countries involved in this calculation was 50. The resultant scores are shown below. The top Openness Orientation index countries are mainly from Northern Europe and North America, follow by Latin America. This indicates that the Northern European and Northern American societies are more culturally open compared to people in other regions. Low Openness Orientation Index scoring countries are mainly from Asia, which are also collectivist cultures, especially East Asian

societies. India, Vietnam, and Jordan scored the least in the Openness Orientation Index.

Figure 4.3 Openness Orientation Index



4.4 Competitiveness Data Sources

To investigate the relationship between cultural values and a nation's competitiveness, a statistical of relatedness was conducted using value data from the World Value Survey (2005 – 2009), as explained in the previous section. Nation competitiveness data, such as innovation output, R&D investment, FDI, education performance, etc. was obtained from various sources; such as WIPO, World Development Indicator, UNCTAD, and PISA. The number of countries (*n*) involved in the study ranged from 35 to 56, depending on the availability of measurement data in each dimension and competitiveness data. The following table shows the value and competitiveness data, and data source, for each dimension under investigation study.

Table 4.3 Competitiveness data sources and index

Cultural dimension	Competitiveness aspect for relationship testing	Competitiveness data source	Details
Individualism	Innovation output	WIPO (Patents, Industrial design, trademark)	Innovation index = ((50*Patents Grants Index) + (30*Registered Industrial Design Index) + (20*Registered Trademark Index)) ÷ mean pop. 2000 – 2010. Total up the patents grants index, industrial design index, and trademark index for period of 2000 – 2010, and divide it by the average population for years 2000 – 2010. For calculating the innovation index, the patent grant index is given 50% weight, industrial design 30% weight, and trademark 20% weight. To convert the score into the index of patents grants, industrial design and trademark, the economy with the highest score is ranked first for each category index and is given a 100 point value as the top one. To calculate the each category score, for example patent grants, the patent grant ratio is divided by the world population ratio. Patent grant ratio = Sum of country patent grant ÷ sum of world patent grant World pop. ratio = Sum of country population ÷ total world population
	GDP per capita (2008)	World Development Indicator	

Uncertainty Avoidance	R&D investment Education performance of student GDP per capita (2008)	World Development Indicator Academic performance score by PISA (2009) World Development Indicator	Share of R&D expenditure to GDP, average 1999 – 2008
Openness	FDI inflow per capita Trade openness GDP per capita (2008)	World Development Indicator Tariff rate, World Development Indicator World Development Indicator	Average of FDI net inflow per capita for 2000 – 2010. Average tariff rate from 2000 – 2010 (applied, weighted mean, all products). The lower the tariff rate, the higher the trade openness index score. The country with the lowest tariff rate ranked first for trade openness index, which is given value of 10point.

4.5 Quantitative Analysis Finding

It is assumed that cultural values have a significant relationship with national competitiveness. For instance, the relationship between Individualism and innovation, Uncertainty Avoidance with R&D investment and education performance, Openness orientation with trade openness and FDI inflow, highlight the relationship between cultural values and national competitiveness. The relationship between GDP per capita and each cultural dimension is also tested. The following section shows the hypothesis for each cultural dimension and the results of hypothesis testing.

4.5.1 Individualism

Hypothesis 1.1:

Individualism has a positive relationship with innovation capacity.

Cultures that promote freedom and individual autonomy create an innovative economy, which is measured by its contribution to world patents, industrial design, and trademarks. By conducting a test for Pearson correlation between the Individualism index and the innovation output index, the results show that Individualism positively correlated with the innovation output index. The correlation efficient was 0.6023 which shows the strong positive relationship. The t value is 5.06 and P value is below 0.001.

Table 4.4 Correlations' testing result between Individualism and innovation.

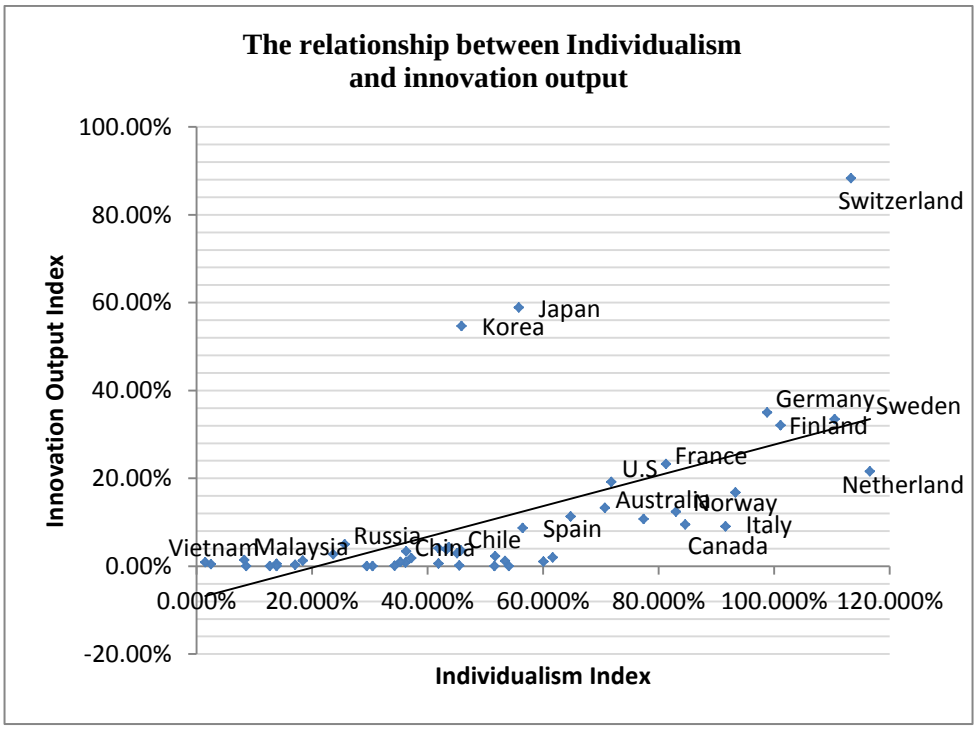
	Correlation coefficient	Coefficient of Determination R^2	*t.* stat	*P* value	Observation
Individualism-Innovation	0.6023	0.3627	5.06	<0.001	47

The statistical test shows that most of innovative economies come from the same cultural bloc. For example, Australia, Finland, France, Germany, Italy, Netherland, Norway, Switzerland, Sweden and the U.S. are all individualist cultures and are highly innovative. However, the presence of Japan and Korea in the list is somewhat unexpected given their high innovation and high collectivism. This indicates that Japan and Korea are both top innovators, but collectivist cultures as well. Most less-innovative economies also tend to be collectivist cultures. This indicates that some other aspect of culture may support the innovation level of Japan and Korea, or that collectivism may not be an obstacle to innovation. To see whether other cultural factors have affected the level of innovation, the regression analysis test was conducted between Uncertainty Avoidance and Innovation. Regression analysis indicated that these two variables have a positive relationship with a correlation efficient of 0.517 and with a P value below 0.001. The test between openness and innovation shows that the relationship is weakly positively correlated with a correlation efficient of 0.325 (R^2 = 0.11, t = 2.12, p = 0.04). The multiple regression analysis showed that Individualism was the most influential factor (coefficient 0.352, t = 3.18) compared to Uncertainty Avoidance (coefficient 0.11, t =2.10) and Openness

(coefficient -0.06, t = -0.72). This shows that while Individualism was the most influential cultural factor on the innovation index, Uncertainty Avoidance was also very important.

Since collectivist countries, such as Korea, has been very innovative; a specific country study of South Korea was conducted to see how collectivism works in light of Korea's tendency to produce some highly innovative organizations, and to identify any cultural changes which might have occurred within Korean innovative organizations in recent years.

Figure 4.4 The relationship between Individualism and innovation output



4.5.2 Uncertainty Avoidance finding

Hypothesis 2.1:

Uncertainty Avoidance has a positive relationship with R&D investment.

Uncertainty Avoidant societies tend to invest more in R&D for coping with the future uncertainty of technology development. New technology from global competitors or from a possible technology paradigm shift in the future that may create new threats, thus investing R&D might offset any possible new changes. Correlation testing between the Uncertainty Avoidance index and R&D investment shows that Uncertainty Avoidance has a strong positive relationship with R&D investment. Therefore, the hypothesis is supported with correlation efficient of 0.6295 (t value= 5.06 and P value below 0.001).

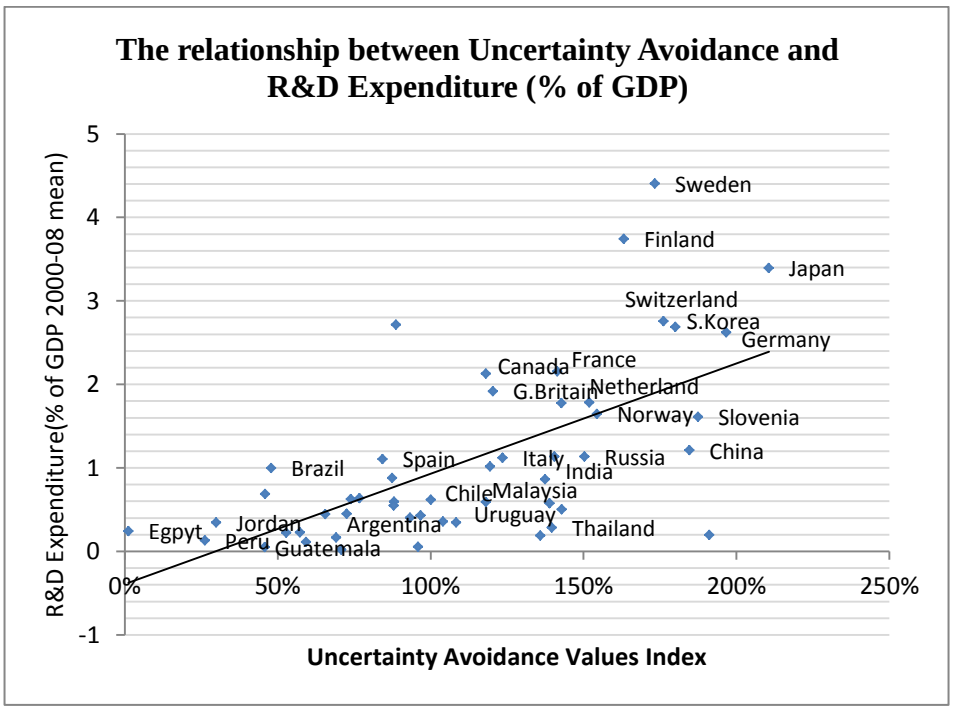
Table 4.5 Correlations testing result between UAI and R&D expenditure

UA-R&D expenditure	Correlation coefficient	Coefficient of Determination R^2	*t* stat	*P* value	Observation
	0.6295	0.3962	5.67	<0.001	51

These findings show that cultures high in Uncertainty Avoidance tend to spend more on R&D (see figure below). Top scoring countries on Uncertainty Avoidance and R&D investment include those from North East Asia (e.g. China, Japan and S. Korea) and Northern Europe (e.g. Germany, Sweden, Slovenia, Switzerland, Finland, Norway, and the Netherlands). Resource rich countries,

such as those from the Latin American region and the Middle East, are congregated at the lower scoring end (i.e. low UAI and low in R&D expenditure). South East Asian countries rank moderately. This suggests that climate and natural resources may affect the Uncertainty Avoidance index.

Figure 4.5 The relationship between Uncertainty Avoidance and R&D expenditure (% of GDP)



Hypothesis 2.2:

*Uncertainty Avoidance has a positive relationship with academic performance***.**

Investing in children's education is emphasized in high UA cultures in order to enhance independence and productivity. By enhancing ability and performance

through education, it will help to deal with future uncertainty and ensure survival. The uncertainty inherent in life is felt as a continuous threat that must be fought in high UA societies, and strengthening an individual's abilities is one way to fight that possible threat. Promoting human resource development and the quality of the labor force are emphasized in high UAI societies. An inner urge to work hard is valued highly by the society and is seen as necessary for a better life. Therefore, it is assumed that in high UA cultures, students achieve better academic performance due to the valuing of hard work, discipline, and future oriented attitudes. High UA cultures need clarity, while low UA cultures are comfortable with ambiguity. By using the PISA examination score data, it is assumed that high UA culture students achieve better academic scores compared to low UA culture students.

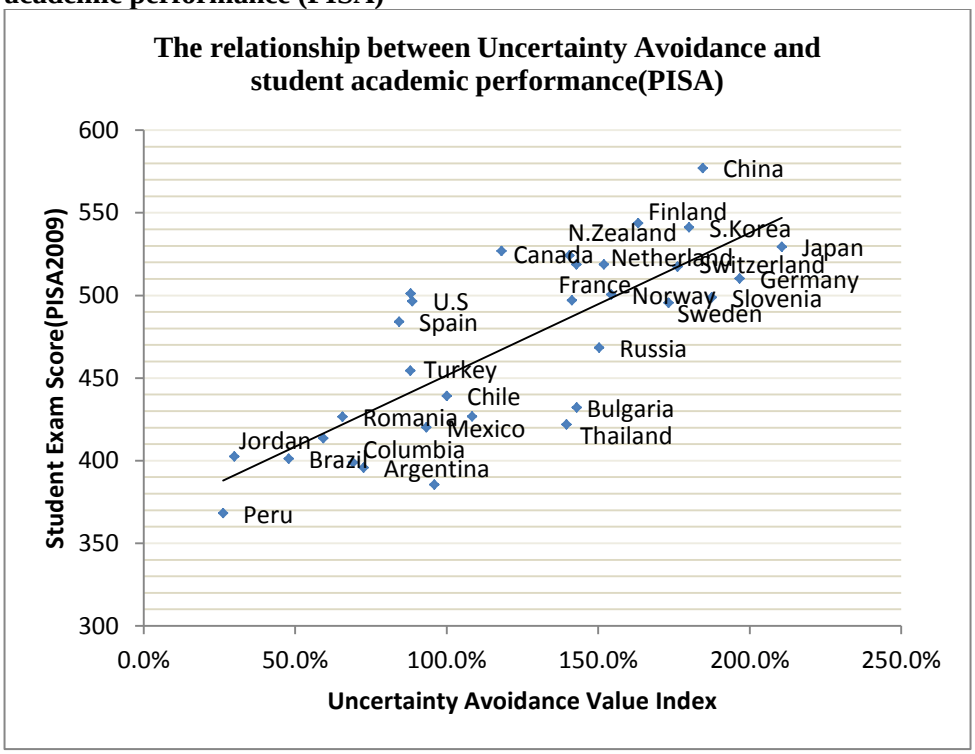
The hypothesis is supported with a correlation coefficient of 0. 7796. The *t*-value is 6.82. It indicates that degree of uncertainty avoidance has a strong positive relationship with educational performance. In comparison to other cultural factors, uncertainty avoidance has the greatest influence on educational performance, as indicated by the high coefficient value.

Table 4.6 Correlations testing result between UAI and academic performance.

UAI-academic performance	Correlation coefficient	Coefficient of Determination R^2	*t* stat	*P* value	Observation
	0.7796	0.6077	6.82	<0.001	32

The graph in Figure 4.6 shows that high UA cultures; such as Japan, China, S. Korea, Germany, Finland, Sweden, Norway, and Switzerland, are the top performers for student academic scores overall. Low Uncertainty Avoidance cultures, mainly from the Latin American region (e.g. Peru, Brazil, Columbia, Argentina, Chile, and Mexico) show poorer performance in student academic scores.

Figure 4.6 The relationship between Uncertainty Avoidance and student academic performance (PISA)



4.5.3 Openness finding

Hypothesis 3.1:

Openness orientation has a positive relationship with trade openness (lower tariff rates).

The more open a culture, the more open the society is to trade with lower tariff rates. The open a culture, the less inclined the society is to trade and the more likely that tariff rates will be high. The hypothesis is supported with a *P* value below 0.01%. Openness has a positive relationship with trade openness, as evidenced by a correlation efficient of 0.5482. Nonetheless, compared to other cultural factors, Individualism is the most influential factor with the highest coefficient value as determined by multiple regression testing.

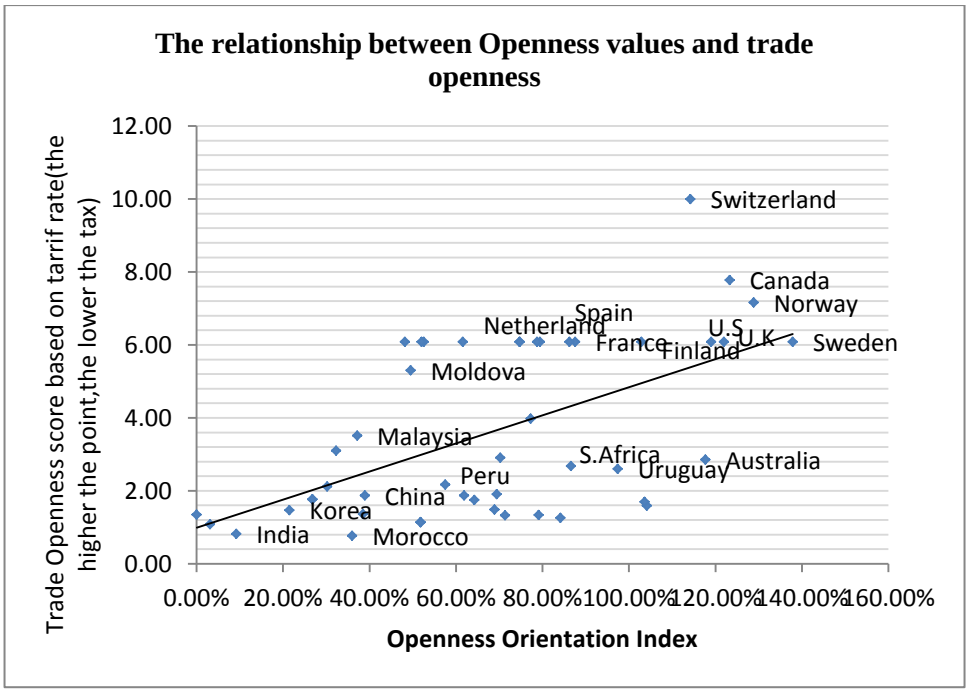
Table 4.7 Correlations testing result between openness value and trade

Trade-openness orientation	Correlation coefficient	Coefficient of Determination R^2	*t* stat	*P* value	Observation
	0.5482	0.30	4.35	<0.001	47

Openness oriented culture, such as Switzerland, Canada, Norway, Sweden, U.S., U.K., and Finland, are more open to international trade with low tariff rates. Asian countries, such as China, India, and Korea, are considered low openness countries and impose more trade barriers. This reflects the positive relationship between valuing openness and trade openness policies. The regression test indicated that Individualism (correlation efficient = 0.72 and with highest

multiple regression coefficient) was the most influential factor, compared to UAI and Openness (see Table 4.11).

Figure 4.7 The relationship between Openness values and trade openness



Hypothesis 3.2:

Openness has a positive relationship with FDI inflow.

Openness oriented cultures tend to attract more FDI through business friendly policies to outsiders. The hypothesis is supported with a correlation coefficient of 0.6775, indicating a strongly positive relationship and the *P* value below 0.0001 alluding to the significance of this correlation. Nonetheless, in comparison to other cultural factors, Individualism was the most influential

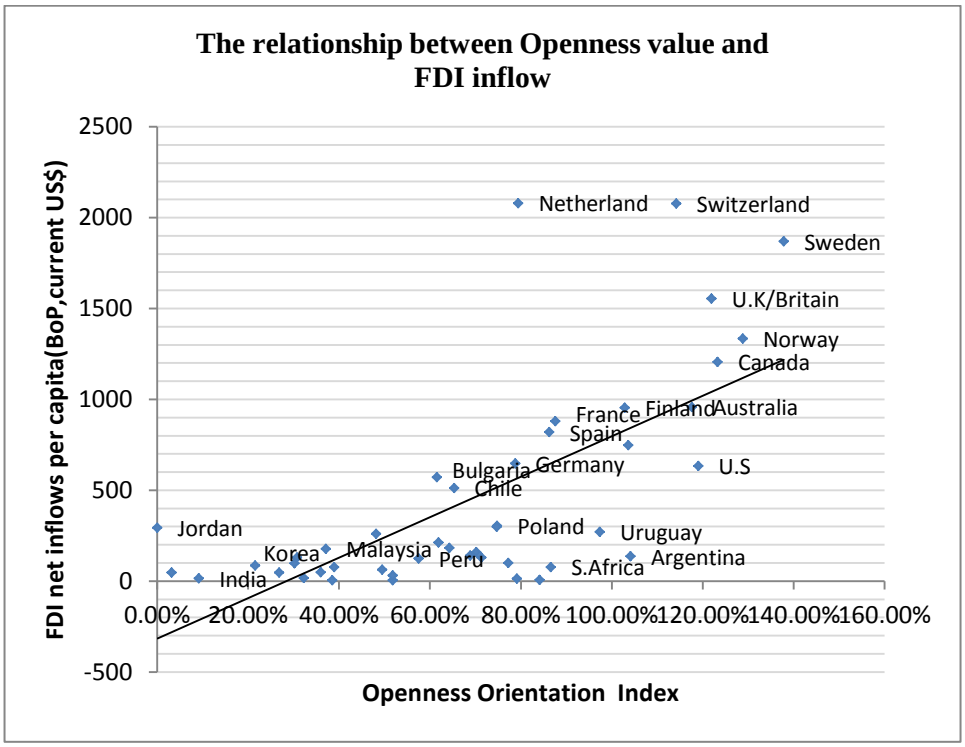
cultural factor on FDI inflow. As was the case for openness, individualism plays a significant role in FDI inflow.

Table 4.8 Correlations testing result between Openness value and FDI inflow

Openness -FDI	Correlation coefficient	Coefficient of Determination R^2	*t* stat	*P* value	Observation
	0.6775	0.4589	6.04	<0.001	45

This test result shows that an Openness Oriented culture attracts more FDI to the country. The openness value is reflected in FDI policies which act to attract FDI. Top scorers of openness culture and FDI net inflow (see Figure 4.8) are mainly Northern Europe and North American countries; such as Sweden, Switzerland, UK, Norway, Canada, Australia, Finland, and the U.S. Asian countries, like Korea and India, have significantly less FDI attraction. A strong positive relationship between openness values and FDI net inflow may reflect the influence of openness values on a country's FDI policies.

Figure 4.8 The relationship between Openness values and FDI inflow



To check the overall relationship of cultural values with economic performance, Pearson correlations test was conducted between each of the cultural dimension with GDP per capita. The test result shows that the degree of Individualism and Openness has a strong positive relationship with GDP per capita while UAI has a moderate positive relationship with GDP per capita as shown in the table below.

Table 4.9 Correlations testing result between each cultural dimension and GDP per capita

Cultural variable	Economic variable	Number of countries	Correlation efficient	Coefficient of Determination R^2	T value	P value
Individualism	GDP per capita	45	0.8153	0.6647	9.23	<0.000
Uncertainty Avoidance (UAI)	GDP per capita	47	0.4522	0.2045	3.4	<0.000
Openness	GDP per capita	44	0.6755	0.4549	5.92	<0.000

4.6 Quantitative Research Summary

In brief, the Individualism index is highly related to the innovation index. Uncertainty Avoidance is associated positively with R&D expenditure and student academic performance. Societies which are more opened-minded and individualistic also perform better on trade openness and attract more FDI. The overall quantitative relationship test (i.e. correlation coefficient) between each cultural dimension and competitiveness is summarized in Table 4.10 and 4.11. Individualism was found to be the most influential cultural value for innovation, trade openness, FDI openness, and GDP per capita. The values of Individualism are somewhat similar to those of openness; therefore it is not surprising to see a strong positive relationship between them. In terms of educational performance,

Uncertainty Avoidance has the strongest positive relationship compared to other cultural factors.

Overall, this study proves that cultural values are highly related to various aspects of a nation's competitiveness and economic performance. Innovation driven economies, such as those of Northern Europe, Japan, and Korea, are Uncertainty Avoidant cultures. Uncertainty Avoidant cultures perform better in terms of educational performance and R&D investments. Confucian cultural zone countries, such as Japan, Korea, China, and Vietnam, have a high degree of Uncertainty Avoidance. Northern European countries, such as Germany, Switzerland, Sweden, Norway, and Finland, are also categorized high UAI cultures. This suggests that Uncertainty Avoidance plays a significant role in enhancing a country's national competitiveness. This might also hint at China and Vietnam becoming future innovators and more economically prosperous should the political economic system become more supportive.

However, more individualist and open-minded western countries perform better in terms of FDI inflow and trade openness. Confucian cultural zone countries, like Japan, Korea, and China are more collectivist and less open; and perform poorer in trade openness and FDI inflow. This suggests that if Confucian cultural zone countries want to achieve similar successes as what Northern Europe countries have enjoyed, they need to be more open culturally and embrace individualism. The relationship between the Individualism and Innovation indexes is highly positive; however the counter-intuitive strong ranking of Korea and Japan suggests that a collectivist culture also can achieve

similarly high levels of innovation. However, the long term sustainability of the innovation capacity of collectivist cultures is questionable. The statistical testing has shown that Uncertainty Avoidance has positive relationship with innovation. This may explain why Korea and Japan are so highly innovative, since they invest a lot in R&D, and perform very well in science and engineering education.

Cultures low in Uncertainty Avoidance tends to be less competitive. Countries from Latin America, South East Asia, and the Middle East are categorized as low-moderate UA cultures. Countries in these regions tend to fall behind in technology, trade, and student academic performance. Interestingly, this group of countries also tends to be rich in natural resources. Therefore, the presence of an abundance of natural resources may affect the cultural values which make people more tolerant of ambiguity and threats. Non-achievement or less achieving cultures are the product of a tendency toward a present orientation, being easy going with environmental uncertainty, and being accepting of uncertainty through religion.

In conclusion, the strong relationship between cultural values and national competitiveness as identified by this study establish that cultural values are highly related to national competitiveness. Among the cultural dimensions, Individualism has the strongest correlation with national competitiveness achievement, especially in terms of innovation, trade, and FDI openness. The core values of freedom, free competition, individual autonomy, and performance orientation play a significant role in determining the economic activities and productivity levels of a society. The “Revolution of Human Thought” and decline

of feudal monarchies beginning in the 17th century in Western Europe, gave rise to a culture of liberalism and individualism, and these values now appear to have been some of the driving forces behind the wealth generating capacity of many European and western economies. Countries with some of the highest standards of living, such as Switzerland, Norway, Finland, and Sweden, also top the list in Individualism, Uncertainty Avoidance, and the Openness Orientation index. This indicates the importance of these three cultural values in terms of long-term national competitiveness, particularly in innovation driven economies which tend to be supported by values of such as individual autonomy, freedom, and openness.

Table 4.10 Summary of quantitative relationship finding- correlation and regression matrix

Hypothesis	Independent variable	Dependent variable	Number of countries	Correlation efficient	Coefficient of Determination R^2	T value	P value
1	Individualism	Innovation	48	0.6023	0.3627	5.06	<0.000
1.2	Individualism	GDP per capita	45	0.8153	0.6647	9.23	<0.000
2.1	Uncertainty Avoidance	R&D expenditure	51	0.6295	0.3962	5.67	<0.000
2.2	Uncertainty Avoidance	Education	32	0.7796	0.6077	6.82	<0.000
2.3	Uncertainty Avoidance	GDP per capita	47	0.4522	0.2045	3.4	<0.001
3.1	Openness	Trade openness	47	0.5482	0.30	4.35	<0.000
3.2	Openness	FDI openness	45	0.6775	0.4589	6.04	<0.000
3.3	Openness	GDP per capita	44	0.6745	0.4549	5.92	<0.000

Table 4.11 Comparison of three cultural dimension relationships with each competitiveness achievement area

Dependent variable/Independent variable	Individualism		Uncertainty Avoidance		Openness	
	Correlation efficient	T stat	Correlation efficient (r)	T stat	Correlation efficient	T stat
Innovation	0.6023	5.06	0.5170	3.72	0.325	2.12
R&D investment	0.7141	6.45	0.6295	5.67	0.5911	4.64
Education performance	0.55	3.41	0.78	6.67	0.31	1.64
Trade openness	0.72	7.01	0.34	2.28	0.5482	4.35
FDI openness	0.81	8.8	0.40	2.60	0.6775	6.04
GDP per capita	0.82	9.23	0.45	3.4	0.67	5.92

CHAPTER 5: SPECIFIC COUNTRY STUDIES OF SOUTH KOREA AND MALAYSIA

In addition to the study of the general pattern of the relationship between cultural values and competitiveness, South Korea and Malaysia have been selected for an in-depth analysis. Although these two countries are part of the East Asian region, both countries are culturally very different. South Korea is part of the Sinic bloc of civilizations, a group of homogeneous cultures influenced by Confucianism. Malaysia belongs to the Austronesian-speaking cultural bloc, which is highly influenced by Indian civilization, Islam, and Western colonialism. Huntington (2011) classified Malaysia as an Islamic civilization due to its majority Malay Muslim population. Although Malaysia's population today is multi-ethnic, the ethnic Malays and others Austronesian-speaking groups comprise 60% of the total population. The second largest ethnic group in Malaysia is the Chinese who make up 25% of the population, followed by ethnic Indians who make up about 7% of the population.

South Korea and Malaysia were newly established nations after World War II. Industrialization of the two countries took off around the same point. South Korea, after suffering massive destruction during the Korean War of the early 1950s, set off on its own modernization path under the leadership of Park Chung-Hee in the 1960s.

Malaysia, which was formed in 1963, began its own industrialization process in the early 1970s. The industrial sector grew rapidly from early 1980s under the Mahathir's administration. One of the important development policies of Mahathir's administration was the "Look East Policy". After witnessing the success of Japan and Korea in developing their industrial sectors, Mahathir determined to learn from these two countries concerning how to become a technology driven economy. Despite almost 30 years of effort, Malaysia has not matched the successes of Korea or Japan. Some economic development models were copied from the countries to be applied in Malaysia, but little success was had. For example, the national automotive and steel industries of Malaysia were copied from similar models in Japan and Korea. However, these two national projects were unable to become export-oriented industries as they had done in Korea. Certainly many factors contributed toward these differences in achievement. To investigate why Malaysia was unable to replicate the successes of Korea, this paper focuses only on cultural factor, by examining how different cultural values have affected the development process.

5.1 Economic Background of South Korea and Malaysia

Korea has been transformed from a subsistence agricultural economy into an industrialized economy over the past five decades. As late as 1961, Korea suffered from nearly all the difficulties facing most poor countries today, Korea's per capita gross national product (GNP) was less than of Sudan and less than

one-third that of Mexico in 1961 (Kim 1997). After the Korean War, Korea was heavily dependent on foreign aid from the U.S., particularly during Syngman Rhee's administration. However, from 1961, under strong government leadership, sound economic planning, and hard work on the part of its people, Korea has overcome its innate lack of resources and achieved an impressive annual growth rate of over 9% in GNP (Yoo and Lee 1987). Korea's annual manufacturing output growth rate has been nearly 20% and its export growth rate over 30% (Yoo and Lee 1987). Korea wealth progress has been continued to improve despite occasional economic crises.

After five decades of hard work by its people, leadership, entrepreneurs, and laborers, Korea has emerged as one of the powerhouse economies of the world, with a GDP per capita of more than USD20, 000. The success of Korea has often been described as "The Miracle of the Han River". So, the question here is how many countries can do the same as what Korea has achieved? What are the main factors of behind its success? Does the culture play a significant role? Countries belonging to different cultural blocs, such as the Philippines, Indonesia, and Sudan were richer than Korea five decades ago; but today these countries are still trapped in their developing nation status and with various developmental problems. Interestingly, Korea's neighboring economies belonging to the same cultural bloc, such as Taiwan, Hong Kong, Singapore, and China have also achieved remarkable growth much as Korea had done. Thus, the Korean miracle was not the only the miracle economy of East Asia, the miracle having been shared among other Sinic-Confucian countries. But what is impressive is Korea's

growth rate, which has remained consistently high and has continued rise. World-class multinational companies from these countries have grown rapidly and gained in strength. Certainly, cultural factors must play an important role since all of these fast growing economies belong to the same cultural bloc. Huntington (2000) also argues that culture accounts for much of Korea's success.

Malaysia, which is altogether culturally different from Korea, is not only richer in natural resources, but was economically more prosperous than Korea until 1970s. Malaysia had similar income levels to Korea in early 1980s, but has started to fall behind from the mid-1980s, and the income gap between the two countries has grown year by year. For instance, in 1980, the GDP per capita, based on purchasing power parity, of South Korea and Malaysia was USD2301 and USD2351 respectively, and then rose to USD7825 for Korea and USD4840 for Malaysia in 1990. The income differences between these two countries continued to widen after the 1997 financial crisis. In 2000, Korea and Malaysia's GDP per capita, based on purchasing power parity, was USD16,495 and USD9,169 respectively, and this figure rose to USD29350 for Korea and USD14,276 for Malaysia in 2010 (World Economic Indicator 2010). The economic performance of South Korea remains strong today with its excellent performance in the technology export sector; while Malaysia is still struggling to get out from the middle income trap. After the 1997 financial crisis, South Korea underwent a series of reforms which resulted in a more diverse economy. The technology intensive industries, such as steel, electronics, and automotive, have continued their remarkable performance. POSCO steel remains the top steel

company in the world. Samsung Electronics, particularly its hand phone business, occupies a huge portion of the world handset market and has become the world's top mobile phone manufacturing firm. From technology follower to an innovator, Samsung Electronics was ranked third in the world in terms of innovation in 2013, just behind Apple and Google, according to global consulting firm Boston Consulting Group (BCG) (Korea Times 17 Jan 2013). Hyundai's automotive operations have also performed excellently, seeing rising sales on the world market. In 2009, Hyundai has supplanted Ford as the fourth largest manufacturer of motor vehicles according to the *Organisation Internationale des Constructeurs d'Automobiles* (International Organization of Motor Vehicle Manufacturers) (2010). According to Thomson Reuters 2012's top 100 global innovators, South Korea contributed seven institutions/companies[10] to the list, demonstrating the powerful innovation capacity of Korean research institutes and corporations. Sustainable innovation capacity plays a crucial role in ensuring the nation's productivity and prosperity.

In addition to the contribution technology industry, Korea's recent economic growth has also been supported by new industries, particularly the cultural industry and health tourism. The Korean pop-culture and health tourism (esp. cosmetic surgery) has been a growth sector since 1997. Foreign tourists to

[10] The top Korea's innovators are KAIST, Korea Electronic Technology Institute, Korea Research Institute of Chemical Technology, LG Electronics, LSIS, Pohang University of Sciences and Technology and Samsung Electronics. The ranking is mainly based on the production of new patents in recent years.

Korea rose substantially in recent years thanks to the influence of the "Korean wave".

In comparing Korea and Malaysia, Malaysia has been benefited much from its natural resources since the industrialization of the 1970s. The abundance of mineral resources has allowed Malaysian industries to purchase oil at a lower cost thanks to generous government subsidies; where much of the government revenue is derived from taxes on oil. Until early 1980s, Malaysia's export market was contributed to primarily by the commodities sector, particularly agricultural and oil products. As an oil and gas exporter, Malaysia has profited from higher world energy prices in recent years, but these precious natural resources are predicted to dry up soon. According to the International Energy Agency (IEA), Malaysia is projected to become a net importer of oil and gas by 2017 (The Star 2012). Thus, the Malaysian government that was once dependent on revenues from taxes on oil now has no choice but to find an alternative way revenue source.

Similar to Korea, the Malaysian government has worked very hard to transform the Malaysian economy to one that is driven by innovation. However, unlike Korea, these efforts have failed to pay dividends. While the Najib administration had attempted to liberalize the economy under the 2010 Economic Transformation Program, it was overturned by the race-based 2013 Bumiputra Economic Empowerment Agenda due to local political pressure. The Economic Transformation Program, which promised a merit-based transformation program regardless of ethnicity, was seen as a forward-thinking policy to bring Malaysia out from middle-income trap. Nonetheless, by shifting the economic priority

back to racial-based development undermined national competitive growth. The change of policy and deference to ethnic-issues highlights the important influence of nationalism among Malay leaders with respects to national policy making.

Today, the Malaysian economy not only faces the challenges of managing multi-ethnic economy, but also of losing its attraction to FDI and declining oil resources. Based on Figure 3.4 (p.53), showing the GDP per capita comparison between Malaysia and Korea from 1970 – 2009, it is evident that Malaysia has been falling further behind with growing income gaps year by year. Certainly there are many factors contributing to this difference, but this paper only focuses on cultural factors and investigates how these cultural factors affect economic activities, policy making, and business performance. Particular attention is paid to the cultural dimensions of Individualism-Collectivism, Uncertainty Avoidance and Openness.

5.2 Collectivism/Individualism of South Korea and Malaysia

From this study's quantitative analysis, the result showed that both Korea and Malaysia are collectivist cultures. Korea's Individualism Index score was 46%, while Malaysia's index score was only 8%. Individualism Index scores are brought down by the valuing of collectivism; therefore, the more collectivist the society, the lower the Individualism Index score. In short, Malaysian society is

considerably more collectivist than Korea from this study's findings. The index score is based on four proxy values, namely "importance of freedom of speech", "importance of maintaining order in the nation", "goal in life should be to seek to be myself rather than follow others", and "to make parents proud". Previous studies by Hofstede (2001) demonstrate that Korea and Malaysia are collectivist cultures, with Malaysia scoring 26 and Korea 18 on Hofstede's Individualism/Collectivism index, lower scores indicating higher levels of collectivism. According to Hofstede (2001), people in individualist societies are expected to look after themselves and their immediate family only. Individualism emphasizes self-orientation, performance-orientation, challenge-orientation, freedom, and right to both a private life and personal time. These characteristics complement capitalism, particularly the calculative culture, performance orientation, and materialism. Although Hofstede (2001) suggested over 70 variables to describe Individualism/Collectivism, he only asked two questions in his survey to measure Individualism, and two questions to measure Collectivism. In his questionnaire, the VSM 8 2008 (Hofstede's centre), the question Hofstede asks respondents is;

> …Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to have sufficient time for your personal or home life (to measure Individualism), do work that is interesting (to measure Individualism), have a job respected by your family and friends (to measure Collectivism) and

have security of employment (to measure Collectivism) (Hofstede's VSM 8, 2008)

Based on the responses to this question, Koreans were found to be more collectivist than Malaysians. Hofstede's study did not test the relationship between Individualism and innovation; however, his study did allude to a relationship between Individualism and a country's wealth. Table 5.1 below, summarizes the findings of this study and previous studies concerning Korea and Malaysia's Collectivism Index.

Table 5.1 Individualism- Collectivism's study finding for South Korea and Malaysia

Study	South Korea	Malaysia
This study[11]	Low individualism (46)	Low individualism (8) - more collectivist
Hofstede (2001)[12]	Low individualism (18) - more collectivist	Low individualism (26)
Moon (2001)	Moderate individualism - middle ranking	NA
House (2004)'s GLOBE project[13]	moderate collectivist (in-group collectivism score 5.41)	Moderate collectivist - more collectivist) (in-group collectivism score 5.85)

[11] Higher score indicate more individualism
[12] Higher score indicate more individualism
[13] Higher score indicate less individualism or more collectivist

Table 5.2 below shows the World Values Survey's findings, which includes measures of Individualism. Malaysia was found to be slightly more collectivist compared to Korea.

Table 5.2 Individualism values comparison between Korea and Malaysia

	Collectivist	Individualist	Collectivist	Individualist
	One of main goals in life has been to make my parents proud(mentioned strongly agree and agree)	I seek to be myself rather than to follow others(mentioned strongly agree to agree)	Mentioned maintaining order is the most important	Mentioned protecting freedom of speech is the most important
Malaysia	94.9%	91%	57.6%	4.8%
Korea	72.5%	87.5%	35.4%	1.3%

Source: World Values Survey Wave 5: 2005-2009.

In House's (2000) GLOBE research project, which investigated the cultures of middle managers across 62 countries, Malaysia was found to be more collectivist than Korea. The in-group collectivism score for Malaysia was 5.85, while Korea is scored at 5.41; the higher score indicating greater collectivism. In Moon's (2001, 2004) study, Korea was also found to be more collectivist. Moon (2001; 2004) used hard data from the IPS National Competitiveness Report (2003) as the source for cultural value and competitiveness performance data. Moon's (2001, 2004) research methods differ from Hofstede's where the proxies he used for measuring individualism were reward and responsibility. The sub-variables

under reward include reward systems, firm decision processes, and professional compensation; sub-variables under responsibility included job descriptions, individual roles, corporation governance, and labor-management relationships.

Moon (2004) suggests employees are inspired and more innovative when reward systems are based on performance rather than seniority, professionals are appropriately compensated, and the firm's decision process is transparent. Moon and Choi (2001) demonstrate that in a culture with high individualism, people are given full responsibility for their work. If a person is able, devoted, and diligent, a bonus, promotion, vacation, or higher reputation is rewarded (Moon and Choi 2001). People within society are motivated by the prospect of receiving higher rewards (Moon and Choi 2001). This in turn leads to strong and active competition among people, driving them toward the development of new ideas, higher standards of quality of technology, etc. (Moon and Choi 2001). In contrast, if both responsibility and reward are low, there will be little progress (Moon and Choi 2001) Thus, the higher the level of individualism, the higher the wealth performance. However, in the case of Korea and Malaysia, because both are collectivist societies with few differences, this study investigates role of collectivist values on national development policies, which have affected national competitiveness from the 1960s through to the present.

Pearson correlation testing within this study has shown that Individualism has a strong positive relationship with innovation. Two exceptions to this are Japan and South Korea which are both collectivist societies, but highly innovative. According to Thomson Reuter's (2013) report, the top global

innovators are mainly from individualist societies such as the U.S., Switzerland, Finland, France, Germany, Netherland, Norway, Canada, and Australia. However, collectivist societies such as Japan and Korea can also be innovators. As revealed in Figure 4.4, the position of Japan and Korea are contradictory. This indicates that collectivism was not an insurmountable obstacle against the creation of an innovative economy for either Japan or Korea, but the future sustainability of these countries innovation remains a question. In addition, since most technology pioneers are from western individualist cultures, particularly the U.S, this might suggest that if Japan and Korea want to achieve higher levels of innovation and come to be technology leaders, some essential aspects of individualism may help these two countries to achieve higher levels of innovation. This assumption is proven through a specific country study of Korea, where Korean technology firms have begun to face management problems under the dominant collectivist culture, particularly in relation to rigid hierarchical structures and seniority-based reward systems. The 1997 financial crisis was a crucial shifting point for many Korean firms which necessitated a series of reforms. Korean firms begun to replace their traditional management cultures with global standard management systems, for example, replacing the seniority-based reward system with a performance-based system which has subsequently become the dominant reward system in Korean organizations since 1997.

In the following section, will see how Korean collectivism works, how it influences Korea's development progress, how it contributed to the birth of Korean technology firms, particularly in the initial stage of industrialization, and

how the Korean firms reformed their management systems away from collectivism and refocused on individualism (i.e. performance-based, flexible employment) after 1997 to enhance their competitiveness.

5.3 Korea's Collectivism/Individualism and its Impacts on Competitiveness.

Traditionally, Korea has been a highly structured and homogeneous society characterized by strong social pressures to act, conform, obey, and belong based on a number of family and social groups (Milliman and Kim 1993). The strong collectivism of Korea is not merely influenced by Confucianism, but also through the national education system. Another factor influencing the collectivism of most Koreans is the military system. The Korean military system, which subjects all male Koreans to a mandatory service of about two years, and the militaristic system of governance that dominated Korea for much of its early industrial history, have made differentiating between a militaristic national and corporate culture somewhat difficult. This is especially pertinent since male workers comprise the majority of the total active workforce in Korea today.

According to Hofstede (2001), Korea is high in power distance and low in individualism (Power Distance Index = 60; Individualism = 18). Therefore, it is not surprising that the Korean leadership style is perceived as autocratic and group focused, especially during the early stages of industrialization. This perception has been reinforced by several studies of Korean leadership

suggesting that it is hierarchically authoritative and paternalistic (Yang 2006). Good examples of this paternalistic hierarchical authority include Park Chung-Hee and Chun Doo Hwan, both characterized as dictators for their autocratic leadership. Although the hierarchical structure limits the flexibility of management, it also allows for quick decision making (Yang 2006). In the Korean management system, group harmony or group consciousness is strongly emphasized and is held to be a critical value for many organizations. These strong collectivist values encourage a strong Korean team spirit that drives performance. Collectivism fosters strong relationships where everyone takes responsibility for their fellow group members (Hofstede 1980). The more collectivist a culture, the more likely workers are to accept such team-based work arrangements.

Although this study's statistical analysis highlights the positive relationship between Individualism and innovation, the strong innovative performance of Korea and Japan is in stark contrast to this earlier finding. Therefore, collectivist cultures might also be innovation-driven economies, at least in the early stages of development, perhaps due to the supportive values of collectivism, particularly the working team spirit and ethic of working hard for group interests. Nonetheless, what is important now is innovation sustainability, the ability to be the pioneers in inventing new technology, new products and new ideas in the long run. Collectivist values may have helped Korea to be innovative and achieve in the face of post-war economic hardship and a looming economic disaster in the form of the 1997 financial crisis; but the adoption of some core individualist

values may be necessary for Korea to achieve higher levels of prosperity as the economy enters an innovation-driven stage. Nevertheless, investigating the role of collectivism is necessary since Korea remains a paradoxically innovative collectivist culture.

There are many stories extolling the virtues of Korea's strong collectivist culture and how it has contributed to their economy. One such story is that of Korea's POSCO steel company, which was started with almost nothing in 1960s to become a world class steel company two decades later. Former POSCO president Park Tae-Joon, who has always emphasized patriotic work hard with his famous motto "make steel, serve the country", stimulated the patriotic spirit of Korean workers across the country to work day and night for the benefit of the country. The "make steel, serve the country" motto and "turn right" spirit, was laid as the mental foundation of POSCO and bound every POSCO worker together when Park Tae-joon first set POSCO on its path to becoming the industrial giant that it is today. The `turn right` spirit expressed Park Tae-Joon's firm will to successfully build the steelworks into an industrial giant, which was based on the sacrifice expected of POSCO board members, that they be willing to throw themselves into the Yeongil Bay by turning right from the steelworks construction site if they could not succeed in meeting objectives (KBS World, 2011). The success story of POSCO has earned Park Tae-Joon near legendary status from steel experts around the world. Today, POSCO steel is ranked as one of the top innovative companies in the world. The patriotism of its industry

leaders and workers has built a strong hard-working culture that appreciates discipline and determination, important factors in producing quality.

The patriotic spirit that makes the general Korean willing to sacrifice own benefit for the country can be seen in people's general attitudes. For example, in 2010, a 60 years old Korean man named Ahn Seung-pil won the largest jackpot ever at Kangwon Land Korea, but decided to donate the prize money (USD $700,000) to the Korea Advance Institute of Science and Technology (KAIST) (Korea Times 17 May 2010). The winner said, "After winning the money, I first though about donating it to help the unfortunate, but after watching a TV program emphasizing the importance of advanced science and technology to Koreas' future, I decided to give the money to KAIST" (Korea Times 17 May 2010). KAIST, the Korea Advance Institute of Science and Technology, is a graduate school specializing in science and engineering education and research. Due to the high volume of new patents being produced by KAIST, the school was ranked as one of top 100 innovators in the world in 2012 by Thomson Reuters. The generosity of Ahn in donating his prize money to KAIST is an expression of the collectivist sprit of South Korea and of the pervasiveness of their concern for R&D investment. With a populace willing to sacrifice personal benefits for nation gain, it is easier for Korea to move forward as a nation on the collective shoulders of her people.

Korean nationalism and patriotism is also behind the success of the "buy local product" strategy. Supporting local Korean firms by local Korean firms has been integral to the growth of many local firms. According to Korean news portal,

Segye Ilbo (1 January 1998*;* cited Park, Jang and Lee 2007), a survey conducted shortly after the 1997 financial crisis indicated that Koreans still leaned toward nationalism; with 78.1% of respondents answering positively the question, "Are you willing to purchase and use products made only by Korean companies, regardless of their price or quality, to overcome the economic crisis?"; and a further 93.4% respondents said "Yes" to the question, "Will you join the movements and campaigns for working one hour more and/or working on a rest day to help the country overcome the economic crisis?". Such a public mindset has paved the way for a something very uniquely Korean, "nationalistic marketing strategies" (Park, Jang and Lee 2007). For example, a Korean firm launched into the beverage market with a new brand, "Independent Coke 815" and successfully exceeded the market shares of Coca-Cola and Pepsi for a while (Park, Jang and Lee 2007). In a similar vein, the Hangul & Computer Company narrowly escaped being taken over by Microsoft with the help of a nationwide donation campaign which resulted in the company renaming its flagship office application "Hancom Version 815". These are among just some of the cases where national identity politics have been instrumental in steering the course of the Korean economic landscape (Park, Jang and Lee 2007).

The strong sense of self-sacrifice and loyalty to firm and nation has enabled the Korean government to push national economic growth as a collective obligation and a civic duty. This explains how collectivism made the Korean economy more dynamic, particularly during the early stages of industrialization.

5.3.1 National leadership values and their influences on Korea's early development

Previous studies suggested that patriotism plays a major part in the economic modernization and industrialization of Korea, especially in the initial stages of industrialization (Kim 1986; Kim and Park 2003). The strong desire to serve and work for the country was particularly strong during Park Chung Hee's era from 1960s to 1970s. From the top national leader and entrepreneurs, to South Korean laborers, patriotism and devotion to the country were strongly expressed in the South Korean society. During Park Chung Hee's era, the South Koreans were stimulated to commit themselves to national development by equating economy development with national goal (Kim and Park 2003). The foundation of South Korean industries was firmly laid and government policies had benefitted many South Korean technology firms.

There are a number of factors for the formation of collectivistic culture in South Korean society. Government's role in particularly, was very essential in inspiring the Korean collectivistic spirit during 1960s-1970s. This was done not only through government slogans, school education, but also through compulsory military training for every male adult as well as national development policy which affected the entrepreneurs and workers' work ethics. National campaigns under the Park Chung Hee's government, people were reminded everyday with the slogans of "*kugwi sonyang*" (enhancing national prestige), "*kungnyok*" (enhancing national strength), "*oehwa hoektuk*" (earning foreign exchange),

which emphasized the collective goal (Kim 1986). The campaigns were promoted through the wise use of mass media, including television, radio, newspapers and magazines.

Among the Korean leaders, Park Chung Hee is recognized as Korea's most effective country chief who had successfully transformed the South Korean economy by reconstructing national culture, which Park called it "human revolution". He stresses the need for collectivist mentality for achieving national strength, urged the people to be diligent, independent, confident and the need to sacrifice own interests for national gains. Moon (2008) stated that "Park's strong patriotism is evident in his total dedication to the reconstruction of the nation through modernization by all means, revolutionizing Korean mentality and achieving a self-reliant national defense; he is also praised for reviving national culture and tradition to help establish a national identity in the process of modernization." When Korea was in extreme poverty and chaos, Park Chung Hee (1970, p.ix) affirmed that mental revolution was necessary for Korean people. Park states that:

> …A nationwide movement must be begun to train the people in the sound ethics required by democratic citizens…one might as well expect a rose to flower from a garbage box as expect democracy to succeed in Korea, it is our duty to make use of the garbage box full of past failures as fertilizer which will nurture a beautiful rose of democracy (Park Chung Hee 1970, p.ix)...

The positive attitude of "we can do anything" and the expression *jalsaraboja* (Let us have a better life) as well as the motto " the better the economy is, the better the life is for every worker" were government slogans which attempted to propagate the positive meaning of industrial work and organization during Park Chung Hee time (Kim and Park 2003). To transform the South Korean economy, Park Chung Hee thought that cultural revolution was necessary for the South Korean people. South Korea, as a country which had been poor for a thousand years, believed that the country needed a national awakening program in order to implant the spirit of being confident. Park stated that:

> …We must reflect upon the evil legacies of our past history, slough way the factional consciousness inherited from the Yi dynasty, and the slavish mentality resulting from the Japanese colonial rule, and firmly establish a sound National ethics. Without a human revolution, social reconstruction is impossible…a nationwide movement must be begun to train the people in the sound ethics required by democratic citizens (Park Chung Hee 1970, p.vii)…

Through the national reformation campaign, Park launched the "national awakening" program to motivate the people to work hard for the country. Industrial workers were described as "*shu'chul pyong sha*" (export warriors) to enable South Korea to achieve the "*sonjin-guk*" (developed nation) status. Park Chung hee (1970, p.27) emphasized the necessity to instill national

consciousness. Park Chung Hee (1970) stressed that every individual must sacrifice their own interest for the sake of society, for the better future of nation, and for the harmony. He stated that:

> …when the interests of the whole are in conflict with the interest of a given individual, we must endeavor to seek agreement through the self-sacrifice and self-control of the individual. Such self-sacrifice and self-control in the interest of the whole is only common sense, and from the national standpoint constitutes the national conscience. Only when common sense has been restored and national conscience revived can we realize social justice whereby the whole people can enjoy prosperity (32)…

Thus, nation's industrial policies at that time was completely collectivistic where national interest was given top priority, issues of individual freedom and human rights had been sidelined. For instance, the South Korean workers' welfare and rights had been sacrificed to keep industrial costs low, and in order to help South Korean industrialists to be cost competitive in the international market and to increase the nation's exports.

- *Sacrificing workers' welfare for faster growth of Korean firms*

As a leader who stressed the needs for "self-sacrifice", Park Chung Hee's used this principle to justify his workers suppression policy, where Korean workers were required to work long hours with low wages, no bargaining power and

discouraged from questioning laborers' right. The main reason was to help South Korean industrialists to produce goods and services at a low cost and able to expand its export market. To achieve the national export goal, workers were urged to accomplish the national obligation by sacrificing own individual interest. Based on this principle, trade unions were totally banned where the laborers' activities were controlled by the state in the form of direct intervention by the police and national security agencies. By emphasizing national economic goal and to achieve the export target, and to make South Korean products competitively priced, laborer were forced to work with extreme low wages and long hours. The policy was good for the employers but not good for the employees. Korean newspaper-Gyunghyang daily news (27 Oct 1970) described the working condition in a textile factory:

> …Young girls are working in a small room as long as 16 hours a day, with extremely low wages and even industrial disease…the workplaces, which are smaller than eight sg m, are so packed with 15 workers, sewing machines and other machinery that people can hardly move… the ceiling is just 1.5 meters, making the workers not able to stretch their waists… with two days off only in a month (cited Chang 2009, p.98)..

This story describes the oppressive work environment of the textile industry where female workers were placed under the low-paid system. Even though laborers continued to ask for wage rise and more holidays, most of the time it

was rejected by the authority with government support. Another example from KSEC, which was quoted in Nam (2009, p.92), tells how management authority justified its anti-labor policy by mentioning the importance of collectivistic spirit.

> …In January 20, 1964, when the KSEC union asked for a 4,500won raise at a Labor-Management Council meeting, the president of the company began by urging to the union representatives about the importance of raising efficiency and conforming to a diligent work ethic, which he concluded that "all the employees should tighten their belts" in the spirit of labor-management cooperation until 1966 in support of the nations' First Five-Year Plan for economic development. A company auditor also urged that: "We should not think of ourselves separately as union men or managers. We should worry together and try together to find solutions as members of one family". So Taewan, who represent the labor union protested, saying that in 1963 the company registered "net profit of 23 million won, which is enough to cover 100percent of the raise demanded by the union… It is essential to help workers who do hard physical labor on a diet of a 10-won piece of bread so that they can maintain their physical strength better." The "one-family" rhetoric notwithstanding, management merely repeated its

> emphasis on a diligent "working spirit" and ignoring the requirement by So Taewan (Nam 2009, p.92)...

Under the "development first" strategy, national interest was more important than anything else in Park's era, where laborers should not be demanding when the country was still in need of more capital. Under the collectivistic mind, Park gave his strong support to the industries, but at the expense and sacrifice of workers' welfare. To Park Chung Hee, nothing was more urgent than solving the poverty problem. In facing the North Korean threat, Park Chung Hee thought that the South Korean economy must be developed in order to become a powerful nation. Government was acting like the chief of industries, and entrepreneurs were like the captain of industries, while workers were described as "export warriors" (*soochooljeonsa*) or industrial soldiers (*saneobyongsa*) that carried the national task to achieve the nation's export target. In addition, corporate slogans, such as "Let's catch up with Japan", "Let's beat Japan" were also utilized by the government to motivate workers to work (Kim and Park 2003, p. 42). South Korea lacked capital and workers were told to endure the hardship associated with low incomes and poor working condition for the time being.

In order to compete internationally, South Korea must be able to price their products competitively. Therefore, workers were reminded that working in the industries was not only for self-survival but it was an obligation to help the nation's industries to grow, to strengthen South Korean economic power and to make South Korea better in the future. Collectivism and patriotism had

functioned as a national ideology in motivating laborers to work. Creating favorable conditions for rapid industrialization not only requires cheap labour, but also the absence of labor disputes. Hence, the Park's government prohibited union activities and suppressed collective bargaining. In collectivistic culture, fulfilling obligation to society is always more important than protecting human rights.

After two decades of workers' sweat under an authoritarian regime enforcing an "underpaid" system, Park had successfully enhanced South Korean industries' competiveness in a short period of time; enabling local South Korean industries to substantially improve its image the international market. The labor intensive industries, such as footwear and textile industry, enjoyed fruitful results. Through cost competitiveness, Korean's exports increased tremendously from USD55million in 1962 to USD17, 214 million in 1980, a 300 fold increase within 20 years. The Korean workers had certainly played a significant role, they showed that the self-sacrificed spirit helped (although unwillingly in many cases). Loy (2008) commented that "… the Korean workers accommodative behavior towards low wages, long working hours, high productivity and a bad work environment are better explained by looking at the state is repressive labor policies… culture had functioned as a "hegemonic ideology" to legitimize state repression." Song (1997, p.99) stated that export firms in Korea had benefited from the low wages that helped maintain international competitiveness and from enforced freedom from labor unrest.

In the late 1970s, when Park Chung Hee was facing people's protest in the Yushin constitution, and issues of labor's right, he again reminded his people about the importance of the collectivistic spirit. Park Chung Hee (1979, p. 60-61) wrote that:

> …Whenever a society is given to extreme individual or collective rationalism and when such rationalism produces fragmented individualism, the resultant conflicts and confrontation degenerates into an uncontrollable state of chaos. Attempts by individuals or groups to maximize their immediate advantage may seem rational at some point, but when seen from a social point of view, they are not only irrational but sometimes become dangerous. ..It might result in a case of individual interest leading to a collective unhappiness. I tend to think that much of today's economic woes in Western Europe have been caused by extreme egoism of individuals and groups… If a railway goes on strike, the foodstuff industry that depends on transportation is affected, which in turn causes problems at the consumers' table. Such interdependence lays an entire society vulnerable to collective action by any small group. No country in the world has enough resources and wealth to satisfy everyone's demands. As a result, the government

> ends up satisfying one group at the expense of another (1979, p. 60)…

In Park Chung Hee's view, Korean industrialization need the people's collectivistic spirit, the "*woori*" culture must be promoted. Through the "*woori*" culture, Korean industries would be able to grow faster with the collective strength of its people. Human rights were not the urgent issue, but eradicating poverty was more important. Thus, the duty of helping oneself and helping others in making lives better in terms of economics was emphasized in the Park's policy. Labor rights and welfare had been subordinated to the accomplishment of rapid economic growth. To strengthen workers' commitment to work, Park Chung Hee urged workers to work as if they owned the business, requested workers to be as dedicated to the firm as they would be to their parents, and employers were asked to treat the workers like members of their own family. Posters and brochures containing the work-exalting slogans were found on the walls in workplaces and on street billboards. Banners on the streets and those hanging from the top of buildings were to ensure that there everyone was made aware of the urgency of industrialization (Kim and Park 2003). Through the promotion of loyalty value to firm and concept of paternalism, national campaigns had successfully enhanced workers' work attitudes and performance. Lee and Johnson (1998, p.78 cited Bae and Lawley 2000) argued that "Managerial values of loyalty, cooperation and harmony underlie most of Korean firm's labor policy. These values engage well with high-involvement work systems. Loyalty to the firm made workers to work

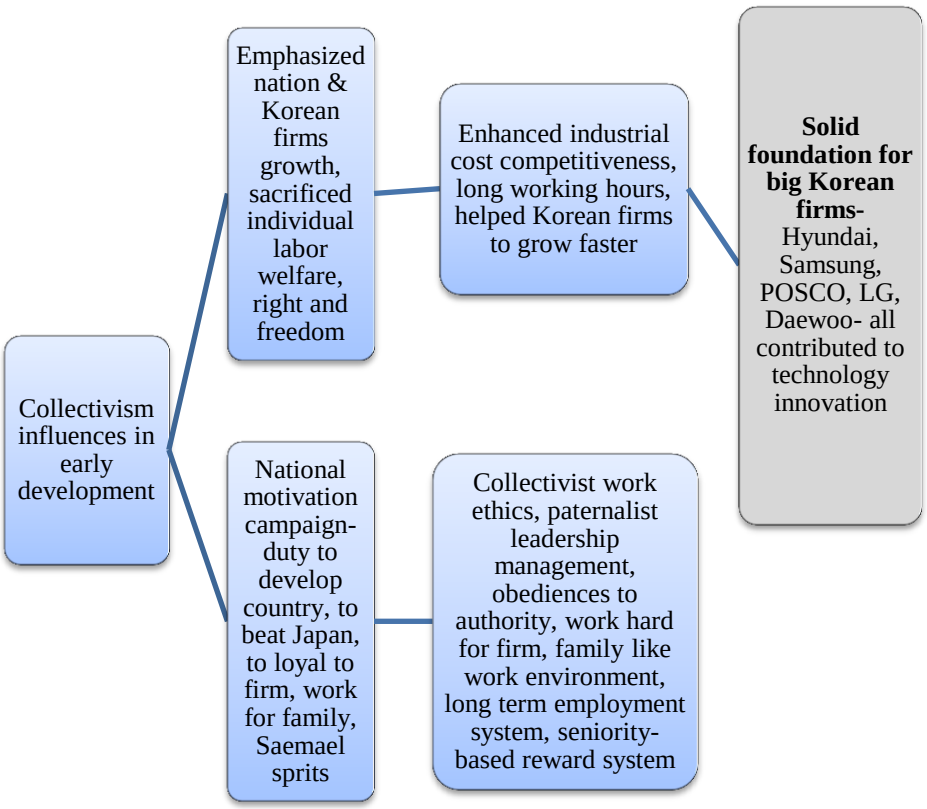
hard and the cooperation spirit strengthened team power. Kim (2010, p.6) stated that;

> …Korea industrialization process if full of touching stories…Park Chung-hee went to Germany to borrow funds, but the banks refused to lend Korea any money. Hearing this, the Korean miners working there pledged their wages for the next 20 years as collateral. Park and the miners cried together and Park returned home with the money. In Vietnam, our young soldiers sent home all their dollar-denominated wages earned in the bloody battlefields. The money was used well to invest in industrialization. Young women from the country worked hard in factories and sweatshops, and many laborers sweated on the construction sites of Middle East during the boom days… there was a considerable consensus among the people about the national motto of building the economy to lead better lives (Kim 2010, p.6)…

The story tells how the collectivistic sprit served as the mobilization source to make individual willingly subordinate their own goals. Kim and Park (2003) argued that both the workers' voluntary participation in industrial work and the harmony in the workplace, which were two of the most essential factors in the nation's remarkable economic success during the 1960s and 1970s, were intimately linked to a new ideology of work and entrepreneurship which

combined nationalism and pro-growth Confucian precepts. The figure below illustrates the links between the collectivist values, development policies and its results.

Figure 5.1 Collectivism influence on Korea's early development



As Chang (2012, p.1438) pointed out that the growth of *chaebol* firms was initiated and steered by the Korean government-led authorities. The influence of the government in Korean societies has been strong and has actively engaged in the industrial development processes. Several studies (example Cumings 1984;

Koo 1984; Kang 1998) suggested that the role of the authoritarian state as being responsible for the creation of *chaebol* firms. One of the unique and common characteristics of Korean HRM is authoritarianism but paternalistic leadership reinforced by a clear hierarchical order and vertical communication.

5.3.2 Korean entrepreneur's collectivism values and business success.

The Korean entrepreneurs, who laid the foundations for the success of Korean industries and innovation, are among the country's patriots who have devoted themselves to the modern nation-making process when Korea knew extreme poverty with and had few economic prospects. Park Tae-joon, who built the first steelworks in Korea, laid the foundation for Korea's heavy chemical industries and made POSCO the industrial giant that it is today. Chung Ju-Yong, the Hyundai group founder, built Korea's first cross-country expressway, exported the first Korean-made car, built Korea's first oil tanker, and Korea's first ship. Lee Byung-chul and Lee Kun-hee, the Samsung group leaders, are described as paternalistic, hardworking and smart, and have exploited the Korean collectivist sprit to motivate their workers to be both productive and innovative. Many of the founding fathers of Korea's modern Korean industry, worked in collaboration with the Park government to achieve national prosperity and overcome challenges facing the nation.

Korea in the 1960s was seen as a basket case, a country without capital, without technology, without expertise, but with an abundance of cheap labor. To

remake Korea into an industrial powerhouse, Park Chung Hee believed that Korea needed frontier entrepreneurs, who could help Korean industries to succeed in the international market and to mobilize resources in an efficient way. Consequently, Park selected a few dozen firms which were unparalleled major privileges and government support to produce and export as much as possible. Among the entrepreneurs, Park Tae-joon, Chung Ju-yong, and Lee Byung-chul were the lucky frontiersmen chosen at that time. Although the choice of the candidates was based largely on Park's personnel preferences, their success in developing Korean industry into the world class player that it is proves that the choice was not merely based on personal relationships. By focusing the nation's capital and technology on a few select industries run by a limited number of business groups, Korea impressively transformed itself in record time. Without doubt, Korea's early entrepreneur played a crucial role in the nation building process.

Early Korean entrepreneurs were often portrayed as frontiersmen, risk-takers, confident, and patriotic. They aspired not simply to amass personal fortunes; but to benefit their nation. They played their roles as the captains industry by utilizing the limited resources Korea had to offer and producing the maximum output. They were seen as embodiment of Korea's economic miracle and industrial leaders of unprecedented transformation.

When the Park government decided to develop the heavy and petrochemical industries, someone was needed to make the steel locally, and Park Chung-hee chose Park Tae–joon as the man for the job. In light of the extraordinary success

of POSCO, Park Tae–joon was clearly the right choice. Park Chung-hee and Park Tae-joon shared the belief that industrialization was a national imperative if Korea was ever to be free from poverty, and as a means of improving the daily lives of the people and developing the national economy (Yoo 2011). Without steel, it would have been impossible to build ship, automobiles, bridges, and buildings. Much of Korea's economic infrastructure has been dependent upon steel. With no technology, no capital, and no expertise in 1960s, Park Tae-joon accepted the challenging task. Under the leadership of Park Tae-joon, POSCO produced 21 million tons of steel annually in his 25 years with the company (1968 – 1992), leading many to compared Park Tae-joon to America's Andrew Carnegie; whose steel production capacity amounted to only 10 million tons annually over 35 years (POSCO press release 2011). In 1998, POSCO was recognized as the world's leading crude steel production company.

To meet the growing need for self-developed technologies or technology independence, POSTECH (Pohang University of Science and Technology) and RIST (Research Institute of Industrial Science and Technology) were established (POSCO website). The FINEX steelmaking process, which is a cutting edge steelmaking technology, was developed by POSCO and commercialized globally, strengthening POSCO's position as a leading global steelmaker. The ability of POSCO to produce low-cost high quality steel made POSCO the "World's Most Competitive Steelmaker" for 4 straight years, as recognized by the World Steel Dynamics (POSCO press release 2013) Although POSCO today is already at the top of its game, it faces tough competition from Japanese and Chinese rivals.

Therefore, POSCO must to work hard to continuously develop new innovative technologies.

The "make steel, serve the country" motto and the "turn right" philosophy are the mental foundations of POSCO which unified its workers since the company was founded in 1968. When Park built the Ilgwan steel mill in the Yeongil Bay in Pohang in 1970, he promised the workers that he would make the mill a great success because it was built with capital allocated from the Japanese (KBS World 19 December 2011). If the business failed, he said he and the mill workers would drown themselves in the bay. The stress of using money obtained from Japan led the workers to exceed in the efforts and to produce more steel then anyone could have anticipated. Korean national pride was at stake and POSCO workers took it upon themselves to protect Korea's reputation. Encouraged by Park Tae-joon's resolve, the workers devoted everything they had to finish the mill's construction six months ahead of schedule, taking only six month to complete construction (KBS World 19 December 2011). It has become a legend in industry, showing how patriotism can motivate even the lowliest of workers to work day and night for the future of a nation. During Park Tae-joon's speech to employees, Park stated:

> …Why did we make this company? How have we developed this company? For our country to overcome poverty…Amidst the crisis due to the betrayal of the international consortium, we transferred part of the funds claimed from Japan for revival. If our company struggles because of the conflict

> between the labor union and management, this is against our duties to the people and ancestors… we cannot be content in being a company that stably supplies the rice of industries to Korea, or earning dollar through exports. Pohang Steelworks in the centuries to come must always be the best and most dignified compared to any steel company in the world. Our company has this goal but it cannot be achieved without the proactive cooperation and participation of our employees (POSCO press release, 2011)…

In 1978, China's Deng Xiaoping, during his visit to Nippon Steel's Kimitsu Works, asked Yoshihiro Inayama, then chairman of Nippon Steel Corporation, to build a steelworks like Pohang Steelworks in China, but received the response that, "China doesn't have Park Tae-joon". This was a famous acknowledgement of Park's leadership (POSCO press release 2011). Yoo Byung Chang[14], who worked in POSCO from 1975 – 2010 stated:

> …Park Tae Joon regarded workers as members of his family. He dreams during sleep, sweet or bitter, were all about the steel company. Overcoming all kinds of difficulties, he accomplished the mission of building two steel mills, in Pohang and Gwangyang in the shortest-ever time. Without

[14] Yoo holding positions including president of POSCO America and CEO of POSDATA, who worked closely with Park Tae Joon

> POSCO, the Korean shipbuilding and automotive industries would not exist as they do now (Yoo Byung Chang 2011)…

The success of Korean firms cannot be attributed solely to the Korean patriotic spirit. The collectivist management style of Korean companies has played significant role in the success of many firms. Korean management culture is characterized as group oriented; centered on values of harmony and cooperation. Lee (1997 cited Rowley and Bay 2004) suggested that the value of harmony was mentioned in the corporate visions of almost 50% of Korean companies. Some of Korea's largest corporations, such as LG, Samsung, Hyundai, and SK demonstrate the importance of unity, cooperation, and devotion to work. Today, LG, Samsung, and Hyundai are major contributors to the national innovation index. According to a study by Thomson Reuters, LG Electronics, Samsung Electronics, and LSIS are ranked among the top 100 global innovators. One thing all of these technology firms have in common is that they were born during Park Chung Hee's era, and slowly developed into the giant technology firms that they are today.

Under Korea's collectivist culture, the vertical top-down decision-making process gives rise to autocratic leadership, but it also enables quick decision-making with ideas coming from the top. For instance, Samsung group's President, Lee Kun-hee has extensive power in policy-making. When Lee Kun-hee suggested that Samsung invest in the automobile industry, although the idea was opposed by many among Samsung's Board of Directors, none voiced their

opposition and ultimately the Board went with Lee Kun-hee's decision. This is different to the Japanese management style which stresses consensus. Hyundai Motor demonstrates similar leadership where subordinates unquestioningly obey and respond quickly to the requests of their leaders. For example, a story reported by Holstein (2013) in which Hyundai Motor's chairman, Chung Mong-koo visited a parts distribution center in California. According to Holstein's (2013) recounting, as Chung Mong-koo walked through the building, he noticed a large pile of remanufactured transmissions which had initially failed and needed to be rebuilt. Chung Mong-koo immediately called for everyone associated with the transmission design and quality control to assemble in California as soon as possible (Holstein 2013). As a result, 20 high level executives from all related divisions flew out from Korea to arrive in California within 24 hours (Holstein 2013). This story demonstrates power of collectivist leaders, where subordinates are absolutely obedient to superiors and terrified of causing any offence.

However, despite the strengths and weaknesses of the collectivist management style, collectivism has been the driving force behind the team spirit of Korea's corporate culture and has most certainly contributed to the growth of Korean firms and the Korean economy. Nevertheless, after Korea developed from a factory-driven economy to an innovation-driven economy, the problems inherent in collectivism became more apparent. The rigidity of the collectivist culture, which restricts the free flow of communications and ideas, has started to undermine the growth of innovation.

5.3.3 Problems of collectivism in Korea's innovative firms and the rise of individualism after 1997.

Collectivism had worked very well in the initial stages of industrialization in South Korea. Under the influence of Confucian values, value of stability and harmony are emphasized in Korean society. In Korean organization, employees are treated like family members and head of organization is like father to the employees. In return, employees remained loyal to the companies and their commitment to work became stronger. This collectivistic management culture indeed had contributed to the growth of Korean firms. With disciplined and loyal workforces, Korean multinational firms had been able to capture international market with its competitively priced products; however, in the long run it would not be sustainable, particularly after Korea achieved the status of an innovation-driven economy in the 1990s.

Samsung Electronics and Hyundai Motor, both conglomerates which had enjoyed the growth in the past decades realized the need to change. To sustain its dynamic growth, producing innovative and good quality of products is needed. The ability to offer cheaper products does not always guarantee success in a changing and highly competitive global market in the face of rising production costs in addition to the emergence of new business rivals such as those from China. After a few decades of development, the traditional vertical hierarchical structure, the resulting inflexibility of the employment system became an

obstacle to Korean technology firms as it has started to show signs of slowing down in the decision making process and discouraging innovation and creativities. Rigidity in the organizational structure and mechanistic cultures do not work well for innovative firms, because employee mobility would be limited; and not conducive to free flow of communication and new ideas. Flexible management or organic structure which allows quick decision making and free flow of new ideas are needed because innovation is about developing and implementing new ideas. During the 1997 global financial crisis, Korean industries were facing intense pressure and their survival threatened. Firms were forced to fundamentally rethink their business strategies and management system. During this period, many firms paved the way to transform themselves from a loss-making company associated with cheap products into global leaders of high-end products (Schmitt, Probst and Tushman 2010).

Korean firms decided to reform the management system, and the majority of the firms were innovative firms. They realized the weaknesses of traditional collectivistic management; the weaknesses of authoritarian leadership, hierarchically structured organization and seniority-based reward system in particular. Collectivism may be suitable during the early stages of industrialization as it focuses on low-tech manufacturing and competitive low-tech products. However, collectivistic and related autocratic/authoritarian leadership style is not conducive to innovation as could be seen in Western innovation companies such as 3M, IBM, Bosch, Siemens, and etc. Globalization imposes pressure on both the South Korean government and companies to change.

Many Koreans who were educated in Western Management philosophy and approaches such as Deming's philosophy, Maslow's theory on Management at American universities would have known the need to transform South Korean management of industrial conglomerates and firms in line with Western management practice through education and practice. For example Lee Kun Hee, the chairman of Samsung group from 1987, obtained his MBA degree from George Washington University and initiated the change in Samsung management system. The traditional tall and vertical hierarchical structure of Samsung was restructured to become flatter. Lee famously said in 1993, "Change everything except your wife and kids". To change a company's corporate culture, management system and structure need to be changed. For instance, the Samsung group used a process known as "twenty-one chops" in the past, which took several months to get a project approved. After Lee became the CEO, he demanded that these twenty-one chops be reduced to three (Paisley 1993, p.64). The decentralization of management continued under Jong Yong Yun in 1996, a former CEO of Samsung Electronics. Yun restructured Samsung by challenging traditional Korean corporate culture characterized by hierarchy and lifetime employment (Roopa and Chaudhuri 2005). Yun emphasized that innovative products were necessary for Samsung's survival. To enhance Samsung's ability to innovate, corporate culture had to be changed and replaced with a new HRM system. To achieve the required flexibility in management, Yun strengthened each business unit power through decentralization. Through decentralization, autonomy of each business unit was strengthened and decision-making process

was simplified and direct involvement of senior executives reduced (Schmitt and Tushman 2010). Every business unit would formulate clear objectives (e.g. market share, innovativeness, quality and profitability) to facilitate the evaluation of the unit's productivity (Roopa and Chaudhuri 2005). To encourage free flow of ideas and communication, formality was eliminated when Yun began his tenure at Samsung and a new culture was introduced at the executive level. Instead of lengthy presentations and reports, senior managers were urged to brainstorm, debate and argue to achieve consensus (Schmitt and Tushman 2010). These discussions at the executive level enabled a better decision-making process, minimizing the risk of uncoordinated or loose links between each business unit (Schmitt and Tushman 2010).

The need to reform became more urgent due to the damage done by the 1997 global financial crisis as neo liberalism began to prevail in Korean public policy, corporate management and human resource management. This brought tremendous changes in many areas of corporate governance, including human resource management (Bae and Rowley 2009, p. 409). Under the government's efforts, a series of reformation efforts was initiated, such as include replacing seniority-based reward system with performance-based system; reducing hierarchically tall and vertical structure and decentralizing management system, implement a flexible employment system and slowly doing away with lifetime employment and ensuring the separation of ownership and management. As Shi (2006) pointed out that the lifetime employment, seniority-based compensation and evaluation systems weakened employees' motivation and thus reducing the

company's productivity and competitiveness, leading to a loss in its competitiveness against its rivals. Since the majority of Korean multinational firms are technology based and innovation-driven, the human resource management system experienced gradual change to meet international standards. Bae and Rowley (2002) illustrated the changes in Korean human resource management as shown in the table below.

Table 5.3 Changes in Korea's human resource management

	Old characteristics with strong collectivism	New characteristics with rise of individualism
Core ideology	Organization first Collective equality Community oriented	Individual respected Individual equity Market principle adopted
Work system	Tall structure Line and staff; function based Position-based	Flat structure Team system Qualification-based
Reward system	Seniority(age, tenure) Pay equality pursued Evaluation to advance in job and grade No appraisal feedback Single-rater appraisal	Ability and performance Merit Pay system Evaluation for pay increases Appraisal feedback 360 degree appraisal

Source: Bae and Rowley 2002, p.411

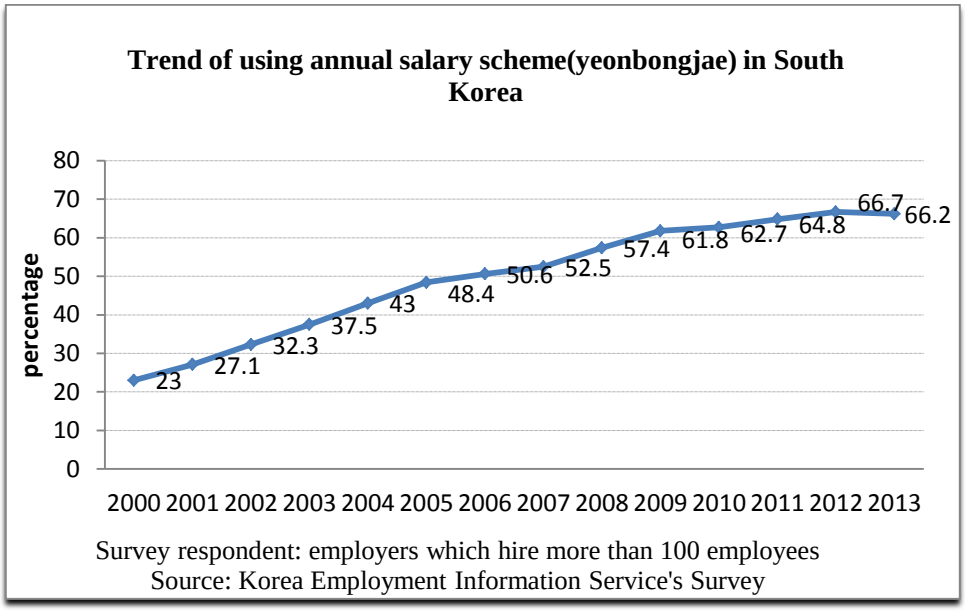
The Korean human resource management has to change in view of the emergence of the knowledge-based economy. Inglehart and Baker (2000) found evidence of values orientation encountering changes when a society shifts from traditional toward secular-rational, and from survival toward self-expression. As a new knowledge-based economy, Korean leaders and entrepreneurs realized the need to adopt a more individualistic approach in their efforts in improving their

levels of competitiveness in a new global economy One of the most significant reforms is to replace the seniority-based reward system with performance-based system. Instead of the seniority-based reward system which rewards employees based on how long they have worked in the organization, merit-based system ensures that employees are rewarded for their contribution to the organization. The seniority-based system encourages stability and harmony but the performance-based system encourages employees to put in more efforts to achieve jobs' target.

- *The shift from seniority-based reward system to performance-based system*

Since 1997, an increasing number of Korean companies and organizations had adopted the performance-based annual salary system and flexible bonus system (see Figure 5.2 below). Seniority-based pay system though remained as important practices among Korean companies; however, it has been reduced as reported in survey data presented by the Korea Employment Service Information. To enhance the productivity and to motivate its workforce to work hard, performance-based HRM policy on promotion and compensation gradually replaces the traditional seniority-based reward system. All these changes helped Korean companies in establishing individual incentive system so that productivity could be increased, particularly for the innovation-oriented industries.

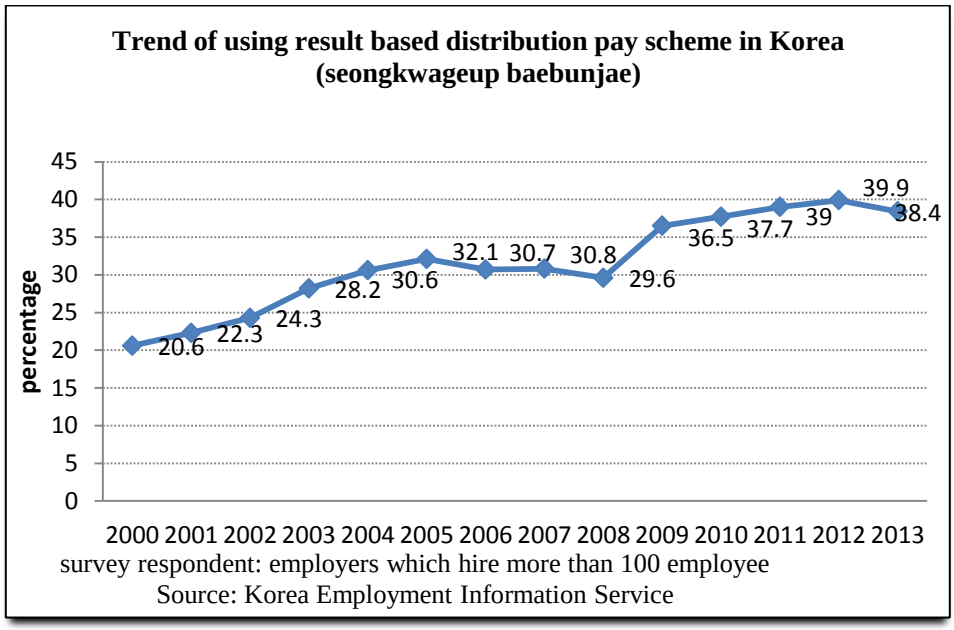
Figure 5.2 Trend of using annual salary scheme[15] in South Korea



Survey respondent: employers which hire more than 100 employees
Source: Korea Employment Information Service's Survey

[15] Annual salary scheme (yeonbongjae) is a system that evaluates 'individual's ability, performance and other job related factors and fixes one's full or partial salary (inclusive of basic salary, bonus, incentive, etc.) on an yearly basis

Figure 5.3 Trend of using result based distribution pay scheme[16] in Korea



Since the mid-1990s, Korean innovative firms and organizations have been reforming their reward system. One of the successful examples is Samsung Electronics. Samsung Electronics was established in 1969 as a manufacturer of low-end consumer electronics and has grown to become one of the top 100 global innovators today. According to the 2013 Thomson Reuters Derwent World Patents Index (DWPI), Samsung Electronics is the global leader in terms of patent volume in the semiconductors & electronic components sector. Samsung Electronics has 35,157 unique inventions between January 1 2010 and December

[16] Incentive distribution based salary (seongkwageup baebunjae) scheme is a system where incentive is distributed among the employees 'collectively' in a form of cash, stocks, welfare fund, etc. upon achieving/overtaking the business target set by the management or by saving production cost by the 'enterprise or department' level. (Incentive is not provided to 'individual' on the basis of performance evaluation)

31 2012 (Top 100 Global Innovator Report 2013). In 2005, the brand value of Samsung Electronics exceeded Sony and it is now twice the size of Sony, the undisputed leader in the sector 20 years ago. Due to its impressive performance and success, Samsung has become an important company of the Korean economy and an innovative company in the consumer electronics sector. One of the key factors for Samsung Electronics success is its management system. When Jong Yong Yun became Samsung Electronics CEO in 1996, Yun decided to break away from the traditional Korean management style (e.g. seniority-based and lifetime employment) and introduced merit-based reward system, implemented a monetary-system to reward its employees for making productive suggestions, and aimed for cultural diversity among the employees. For instance, SEC's business units recruited 800 PhDs and about 300 MBAs from western universities alone during the 1997 economic crisis (Schmitte, Probst and Tushman 2010). Cash-flow principles emphasizing profits over market share were introduced. A school was established to offer Samsung's employees the opportunity to study modern techniques in marketing and productivity, and large bonuses were to outstanding performers (Michell 2010). To attract the best brains to work in Samsung, Samsung Electronics offers the best pay to its executive staffs (average KRW80 million/year).

Similar reforms were introduced in Samsung SDI. Performance based reward system has been implemented since the mid-1990, in staffing, promotion and salary increment (Kim and Bae 2005). In addition to salary, a profit sharing reward system has been introduced since 1999. Profit sharing provided

employees with company-wide bonuses (Kim and Bae 2005). During the 1999–2001 period, individual employees received profit-sharing bonuses every year, and on average the amounts were about 20 per cent of a year's salary. Project incentives are also provided if a project generates profits of more than 200 million won (US$167,000) at the department level or 2 billion won (US$1,670,000) at the company level (Kim and Bae 2005). Under the project based incentive system, all participants in the project would receive monetary rewards based on their contributions to the project (Kim and Bae 2005). As a result, Samsung SDI became profitable again after 1998.

LG Electronics (LGE), another Korean manufacturer of consumer electronics, is also an outstanding innovator. According to the 2013 Thomson Reuters Top 100 Global Innovators report, LGE has 30,342 unique inventions between 1 January, 2010, and 31 December, 2012. LGE is also a three-time winner in the Thomson Reuters top 100 global innovator lists. Since its establishment in January 1958, LGE has been a forerunner in the electronics industry in Korea. It began producing radios for the first time in the 1950s and subsequently has been manufacturing various household electronic appliances. In 2008, a new global identity - 'stylish design and smart technology in products that fit consumer lives' - was introduced, and LGE has maintained a high level of innovation and research and development since then, making the company one of the most successful global electronics manufacturers in the world (Huang and Kim 2013). LGE replaced the traditional seniority-based HRM system with a merit-based HRM system in 1994. Under the new promotion system established

since the mid-1990s, junior employees with excellent potential were promoted to high managerial positions regardless of their seniority. Blue-collar workers could also be promoted to managerial and executive positions if they pass promotion examinations and has the required management talent (Kim and Bae 2005). These practices significantly reduce the psychological barrier between blue- and white-collar employees in LG Electronics. Various incentive programs have been used to reward performance and attract talented employees. To attract the best brains to work in the company, LG Electronics sets up a talent management team which is called "war for talent" strategy. Generous pay packages are rewarded to outperformed staff. To enhance work productivity, profit-sharing system was launched in 1999 (Kim and Bae 2005). For instance, merit bonuses of up to one year's salary were paid to high performers. Besides, competitive employees are provided with company stock to promote loyalty and productivity. In order to recruit promising talent from the external labour market, a signing bonus system was adopted (Kim and Bae 2005). The LGE's director of talent management states that:

> …For those gifted and ambitious individuals, conventional appraisal would not necessarily provide the best avenue to nurture and leverage their potentials ... In a company like LGE, we have to be fully aware that these individuals would not always be satisfy with the traditional grading and promotion. Rather, they know they are on a very different track for their careers (Huang and Kim 2013, p. 936)…

During the 1990-1999 periods, productivity increased on average by 20 per cent every year, sales and profits rose substantially particularly after the new HR management system was adopted. Today, LG Electronics is also one of best employers in terms of monetary incentives given to its employees.

Besides being innovative, Korean research institutions have also carried out management reforms to boost its competitiveness and productivity. KAIST, one of the best academic research institutions in Korea, is one of the leading training grounds for top scientists and engineers in Korea. Since its establishment by the South Korean government in 1971, giant industrialists such as Hyundai, Samsung and LG, have come to depend on the school for the steady stream of graduates. The school not only plays a significant role in producing quality human resource for the South Korean industries, the school innovates. According to a study by Thomson Reuters, KAIST was ranked among the top 100 global innovator in 2012 because of its high number of new inventions. The total number of international patents obtained by KAIST increased from 191 patents in 2002 to 331 patents in 2012 (KAIST website).

To ensure that the innovative capacity of workers does not decline, the performance-based pay system was introduced in KAIST. Academicians are generously rewarded to academicians who have produced quality research (Korea IT Times 31 October 2006). For instance, in 2014, six professors were rewarded cash prize ranging from 25 million to 50 million Korean won each for outstanding achievement (KAIST website 2014 Faculty Award List). In addition to generous rewards, faculty members are also required to meet annual

performance targets determined by the institute, publications in international SCI journals are given particular emphasis. Due recognitions are given to academicians in the form of performance incentives.

In KAIST, the merit-based system is applied to faculty members and to students as well. The new tuition fee policy was implemented beginning 2007. School fee is pegged to students' academic achievement to keep students on their toes. Students with GPAs less than 3.0 out of 4.3 pay partial school fees while those with GPAs of less than 2.0 must pay the full fee (Korea Herald 31 March 2013). Before the reform, tuition fee was waived fully for KAIST students. In addition, to ensure the flexibility of institute management, the university has an autonomous and flexible academic system. Unlike other South Korean colleges and universities, KAIST needs not follow government-directed admissions and curriculum requirements. It reduces rigidity and allows KAIST to act freely to achieve its academic targets. Undergraduate students can join the school through an "open major system" that allows students to take classes for three terms and choose a discipline that suits their aptitude. The autonomous status enjoyed by KAIST is significant in attracting talents and producing quality outputs in a short time. Values of organization harmony (hwa) is not strongly emphasized but is replaced by competition value. The reform indicates the shifts of oriental collectivism to western individualism. Suh Nam Pyo, the former KAIST president said that,

> …Students and professors of KAIST are at an international level of competitiveness, future graduates of KAIST must

> have the ability to work in a global economy, therefore they should be trained and exposed to the culture and customs of other nations so that they can operate globally in technical and managerial fields (Korea IT Times 31 October 2006)…

Overall, the institute has promoted a competitive environment to improve its status globally and to achieve the desired innovation. The new policy has been successful to enhance the innovation capacity of KAIST.

- *From lifetime to flexible layoff employment system*.

Besides the changes in reward systems in South Korean firms, the employment relations also encountered dramatic changes. Historically, large scale employment adjustment had been difficult in Korea before 1997. The lifetime employment system, which promotes loyalty and stability in the past, was challenged during the economic crisis. A total of 22,828 firms, the majority of them were small and medium enterprises, were declared bankrupt in 1998 (Chang and Chae 2004, p.428). Korean firms that were able to survive financially were forced to restructure their firms to become smaller. Thus, massive workers layoff was unavoidable and many Korean employees lost their job overnight. During the first half of 1998, about a million workers lost their jobs and the unemployment rate rose sharply to 8% in mid-1998 (Chang and Chae 2004). Korea's giant industrialists, such as Hyundai and Samsung, also encountered financial problems and got to restructure and its size rationalized. For instance, in spring 1998, approximately fifty middle-level managers at the Samsung SDI

Pusan plant took early retirement packages. The number of regular production workers at the Pusan plant decreased substantially and wage rates were cut by about 10 per cent (Kim and Bae 2005). Since then, employment relations in Korea changed tremendously where flexible layoff replaced the traditional lifetime employment system.

Under the reform policies of Kim Dae Jung's government, labor law was amended. The traditional rigid labor market was bound to change under the serious threat of nation financial crisis. Lifetime employment system was replaced by flexible lay off system or the so called market-based regulation. Through institutionalization, employers were allowed to manage their employees more flexibly for the purpose of cost efficiency. Since then, the number of irregular or contract-based workers increased sharply and permanent tenure is history. The rigid lifetime employment is problematical because it was costly and not cost efficient and it discourages productivity when employees assume that their tenure is secured forever. It is argued that flexibility in these areas improves competitiveness (Bae and Rowley 2004). The workplace labour relations have changed from authoritarian control to competition-based control. Flexible wage adjustment is one of the new changes. Korean firms have gradually been shifting to global standard with flexible employment system.

- *Efforts of separating ownership from management*

Another characteristic of Korean collectivism is that it is family-based. It has its influence on the Korean firms' ownership and management structure. Big Korean

business groups firms such as Hyundai, Samsung and LG are generally family-controlled concerns. Under the influence of Confucianism and oriental values, taking care of family welfare and interests is important. Korean entrepreneurs used to organize and manage their company based on the principle of governing the family. Business founders are expected to feed and provide for not only their immediate family members but other relatives as well (Song 1997, p.194). As a result, many Korean enterprises are staffed by the relatives and fellow clan members of the owners and operate under rules which often resemble those of the clan system (Song 1997, p.194). For instance, the LG Group is famous for its strong family control in the company's management. The Ku family who founded LG is a typical traditional family which places high responsibility on the eldest son. For example, Ku Cha Kyung - the eldest son of Ku In Hoe - succeeded his father as the LG Group chairman in 1970 and led LG Group until 1995. Ku Cha Kyung also followed his father's footsteps by passing down the power to his eldest son - Ku Bon Mu, who is the major shareholder in the LG Group. Hyundai Group, one of the biggest *chaebols* in Korea, is also controlled mainly by the founder's family members and power is the hands of the sons of the founder Chung Ju Yong. In recent years, the Hyundai Group has started to put forward their management succession plans to the third generation.

The absolute power held by the core family members in the company sometimes creates management inefficiencies. Often, the president of the company abuses his power for his own personal gain regardless of company's benefits. For instance, Chung Mong-Koo, the chairman of Hyundai-Kia Motor,

was alleged to have made illegal share transfers to his son to enable his family to maintain management control. He was also charged with embezzlement and breach of trust in April 2007. This malpractice by the group could be a heavy burden on the company and could impede the government's efforts in carrying out corporate reforms. Family disputes and fighting for control of the management of the company and shares has been another threats for Korean chaebols. For instance in 2012, Lee Kun Hee the former chairman of Samsung group faced lawsuits filed by his older brother and sister to wrest the control of Samsung management from Lee Kun Hee. Korean government has long realized the inherent problem of family-based businesses and initiated corporate reforms to separate ownership from management. To reduce the power of single shareholder in management, outside directors were introduced in 1998. Nonetheless, study by Cho and Kim (2007) showed that the impact of outside directors is not significant and larger shareholders continue to hold dominant power in management decision making.

Although the performance-based system and western management practices were introduced in Korean companies, the relationship based values is still deeply rooted in the Koreans' mind. Traditional Confucian philosophy of family and social relations cannot be eradicated easily from the Korean culture, even in this age of globalization today. For Koreans, the level of trust among family members is always strong compared to that of people outside the family. When more family members are recruited to hold core positions in a company, an inner circle is created and the circle gets bigger as time passes by. They hold the power

and have considerable influence on the rest of the organization. Outsiders often face difficulties and obstacles when they try to break the circle and have little chance of reaching the top. Change culture and value takes times. The shift to professional-based management is a necessity for the betterment of Korean corporations. The relationship-based values should be deemphasized for the sake of firms' sustainability. Table 5.4 below illustrates the changes in Korean organizational cultures and systems before and after 1997.

Table 5.4 Changes in Korea's organizational cultures and systems after 1997

Traditional values	Traditional systems		Rising of new values	New system
Harmony, group based, and respect to the old	Seniority based reward system	After 1997	Competition, individual	Performance-based reward system
Loyalty and stability	Life time employment	⇒	Freedom, competition	Flexible employment system
Family interest Authoritarian Relationship based	Mix of ownership and management. Founder family based		Transparency, democracy	Separation of ownership and management. Professional based

Korea's innovation-driven economy has been dominated by the big business group, or c*haebol*. Samsung group as one of the the most innovative companies in Korea contributed about 20% to of Korea GDP in 2012. The collectivistic

values which comprised of harmony, seniority, loyalty and relationship based, had helped Korean firms to grow in the initial stages. It lays the solid foundation but there is no guarantee that it would effective forever. The shift into a knowledge-based economy has forced the Korean firms to transform in order to be competitive. The global standards of management, which promotes the value of competition, merit and creativity is essential to sustain innovative firms. The old management style and values are no longer suitable for the highly competitive and fast changing business world. Fortunately, leading Korean technology firms such as Samsung Electronics and Hyundai Motors have gradually adopted the global standards, in line with the principles of competitiveness based and merit based system. The management reforms in the 1990s had definitely contributed to their innovation capacity today. Nonetheless, the issue of ownership and management remains critical. Further improvement is to be expected in this area.

5.4 Malaysian Collectivism, values and their Impacts on Competitiveness

Malaysia is a multi-ethnic collectivist culture. The largest ethnic group, the Malays, is a culture emphasizing harmony, courtesy (*adat*), cooperation (*gotong-royong*), and loyalty. Compared to modern day Korea, which is future oriented, Malay society values a more traditional way of life. Islamic ethical codes serve as source of guidance for behavior and social relationships. As a collectivist society

which emphasizes ones obligations as a Muslim and as Malay, human rights and the value of freedom is subordinated. Hofstede (1991) also described Malaysian culture as being relatively high in collectivism and very high in power distance. Abdullah (1996) supports this view, noting that Malay workers are group oriented, respect elders and hierarchy, emphasize loyalty and consensus, and are concerned with harmony in relationships. One of the best examples of this comes from the principles advocated by the National Principles (*Rukun Negara*). The *Rukun Negara* represents the ideology and core values of the Malay people, and stresses the importance of religion, royalty and obedience to law. Through the national school system, from elementary to high school, every student in Malaysia is required to recite the principles of in the *Rukun Negara* during a weekly school assembly. The content of the *Rukun Negara* is as follows:

Figure 5.4 National Principles of Malaysia

Rukun Negara

National Principles

We, her peoples, pledge our unite efforts to attain these ends guided by these principles:

Belief in God
Loyalty to King and Country
Upholding the Constitution
Rule of Law
Good Behavior and Morality

The National Principles (*Rukun Negara*) indicates that the religion of Islam takes precedence over all other concerns and is followed by loyalty to King. One of the main duties of the King is to protect the religion of Islam and rights of the Malay's in Malaysia. Loyalty to religion and one's own community is stressed in the society and Malay values are strongly influenced by Islamic teachings and ethical codes.

Similar to Korean values, Malays believe in the importance of unity and in establishing a moral relationship of trust for building long-term alliances (Abdullah 1996). Being cooperative (*kerjasama, gotong-royong*) is a collectivist value which is emphasized in Malay society (Kadir 2007). A common saying in Malay society is, "berat sama dipikul, ringan sama dijinjing," meaning to share burdens or difficulties together, and to enjoy happiness together. This ethos is paralleled by Korean cooperative spirit, which stresses collective happiness through working together. The spirit of *gotong-royong* (cooperative) is expressed perfectly in the community's festive activities and *kenduri* (i.e. parties). In a traditional Malay wedding ceremony, the relatives and friends of the bride and groom are expected to prepare food together for the wedding guests. Through interacting and working together their, relationships are strengthened.

In collectivist cultures, belonging to a group provide social security net to the individual. Abdullah (1996) states that, "having a sense of interdependence with others is important in enabling Malay to become a member of a social network," and in Malaysia, ethnic group identity is especially important. To be

loyal to the group (i.e. either ethnic group or team group in the workplace), the "we" must to dominate over the "I" as one's existence. Consequently, it is common in Malaysia for Malays to identify themselves as "Malay," and for Chinese to identify themselves as "Chinese;" ethnic group interests often taking precedence over national interests in political arena. Therefore, cultural and social activities in Malaysia are usually centered on ethnicity, and this extends to economic function as well, where the private business sector is dominated by ethnic Chinese, while the public sector is dominated by the ethnic Malays. This phenomenon is in stark contrast to the more ethnically homogenous Koreas society.

Unlike Korea, rather than driving economic performance, the Malaysian collectivist spirit seems to have become a barrier economic development. Malaysian collectivism is unlike Korean collectivism. Malaysia's collectivist spirit is based on racial affiliation. Despite the Malaysian government's efforts to adopt Korean positive collectivist values through the "Look East Policy," few gains have been made. As a multicultural nation, Malaysia is challenged to promote a strong cooperative culture in a society that is composed of various ethnic and cultural groups. Despite various efforts, Malaysia remains racially segregated society (Kahn 2006, p. 156).

The collectivist culture of Malaysia is associated with a large Power Distance. This aspect of the culture is similar to Korea. According to Hofstede's study (2001), Malaysia is among the top scoring countries for high Power Distance. This high Power Distance is related with the hierarchical structure of

society. In traditional Malay culture, Malays are taught to obey authority and respect to the old. This ethos rests on the *budi* (virtues) complex that outlines the ideals of behavior expected of Malay (Abdullah 1996). Under the influence of traditional teaching and Islam, Malays are traditionally very loyal to leaders. For example, in Malaysia's *Rukun Negara*, the second sentence instructs "Loyalty to King and Country". In Malay society, to question or challenge a leader is considered inappropriate and rude (Lim 2001). According to the provisions of the Sedition Act of 1948 and till in effect today, the consequences for criticizing the King can be serious. Due to the vertical top-down hierarchy, Malays tend to shy away from displaying assertive behavior or speaking out openly against elders or superiors (Abdullah 1996). Cooperation and group/community conformity are valued for sake of maintaining harmony; this cultural more is very obvious in Malay society, especially in rural and semi-rural villages. This hierarchical structure explains the nature of the power distance relationship in Malaysia. The effect of power distance was exemplified by Mahathir, former Prime Minister of Malaysia, who dominated subordinate and whose rule over the nation was absolute.

5.4.1 Race-based nationalism and its influences on Malaysia's development

Malaysia nationalism is associated with racial groups. As a multicultural society, ethnocentrism is both widely accepted and endorsed through the constitution and nation policy. The ethnic-based policy protecting "Bumiputra[17] special rights" is mentioned in the constitution of Malaysia. Ethnic Malays are given priority public service employment, public education opportunities, government projects, etc. For instance, Articles 89 and 153 state:

> …The Malays should be given extra transport and business licenses, extra educational privileges, prior right of employment in civil service and the armed forces, and also that Malay Reserve land should be made non-alienable to non-Malays, no quantitative targets or time-tables were set for the achievement of the objective of economic parity in the future (Faaland, Parkinson and Saniman 1990, p. 17)…

The clear distinction between "own ethnic group" and "other ethnic group" is very strong in Malaysia. From the design of national policies, to private sector employment patterns, and personal social networking, with the issue of ethnicity is pervasive. Compared to the more homogenous Korea culture, Malaysian heterogeneous culture presents a challenge for government. In order to ensure equality in income distribution, the Malaysian government has earmarked income

[17] Bumiputra (son of the soil) means Malay in Peninsula of Malaysia and native people in Sabah and Sarawak

equality as the top priority in national policy planning. Jesudason (1990) notes that for nearly two decades, Malay bureaucrats and politicians have measured the success of a policy in terms of achieving ethnic targets and quotas. Under the race-based political party system, the governing UMNO party's chief aim is to promote Malay interests and economic well-being. Former Prime Minister of Malaysia, Mahathir bin Mohamad, has been characterized as a strong nationalist Malay leader who had used his positional power to enhance the economic status of the Malay people. Khoo Boo Teik's "Paradoxes of Mahathirsm: An Intellectual Biography of Mahathir Mohamad," observes:

> …Mahathir as a young parliament member in the 1960s was a Malay nationalist who fought political battles against Chinese economic domination in Malaysia. Over the years, the scale and scope of his nationalism expanded (Khoo Boo Teik 1995)....

Race based nationalism has become a barrier for implementing performance based system in many sector, particular in government linked companies, public sector recruitment, university enrollment systems, government scholarships, and even in bidding for lucrative government projects. Whereas collectivist reward system in Korea was based on seniority and kinship prior to 1997; in Malaysia the collectivist reward system is based first and foremost on ethnicity, other issues being of secondary concern. This practice is officially endorsed by a number of governmental policies, for example, the New Economic Policy (1970 – 1990).

Implementation of New Economic Policy (NEP) commenced under Malaysia's second Prime Minister, Tun Abdul Razak Hussein, in 1971 and the basic principles of the NEP are still in effect today despite the NEP having officially expired in 1990. The objective of NEP was to solve the problem of racial economic imbalance and to promote greater social economic stability. It aimed to restructure the economy to eliminate poverty irrespective of race and end the association of economic functions with race. Prior to 1970, 60% of the country's economic wealth, as measured by share holdings in large corporations, was owned by foreigners, 30% was owned by ethnic Chinese, and the remaining 10% owned by the other races. With the implementation of NEP, the government aimed to increase share ownership by *bumiputra* (lit. "Sons of the soil" in reference to the ethnic Malays) to 30%, raise Chinese share ownership to 40%, and reduce foreign share ownership to 30%. To achieve this target, all initial public share offerings, or IPOs, were required to set aside a 30% share for *bumiputra* investors. Should *bumiputra* investors divest their shares, the company had to issue new shares to maintain the proportion of *bumiputra* shares above 30%.

When the Tun Razak government announced this policy, the Malay community welcomed it. Mahathir (2011, p. 242) commented:

> …I was happy with this affirmative action policy because I always felt that unless the extreme disparity in wealth between the Chinese and the Malays was corrected, tension

> and animosity would never be erased… For Malaysian to be stable, the economic gap had to be reduced…

Consequently, when Mahathir assumed power as Prime Minister in 1981, the Malays were given preferential treatment in public employment, education, scholarships, unit trusts, business, access to cheaper housing, and assisted savings through the Five Year Economic Plan. Although the NEP was only intended to be a temporary measure, expiring in 1990; the idea of affording *bumiputra* special economic privileges and concession was perpetuated into the Sixth, Seventh, Eighth, Ninth, and Tenth Malaysian Plans.

The NEP resulted in a sharp rise in the number of Malay business persons and the expansion of the Malay middle and upper class as compared to before 1970. Under the race-based national policy, the Malays are granted special rights for gaining employment in the public sector, as well as a reservation quota on employment in publically listed companies. As a result, Malays today comprise 80% of public civil service employees as well as in government-linked companies, such as CIMB, Maybank, Petronas, PLUS Expressways, Proton, and so on. Since the NEP, the proportion of non-*Bumiputra* employment in the public sector has declined dramatically In addition; Malay students are given better chance in entering national universities. Two types of university entrance exams are implemented and various national scholarships offered. Consequently, the enrollment of non-Malay students in national universities has dropped substantially. Also, to promote Malay business participation and property ownership, various government funds, projects, assistance, and training schemes

have been provided. As a result, *bumiputra* companies, which are often linked to various individual politicians, have come to dominate key economic sectors, heightening the concerns of Malaysia's other ethnic groups and foreign businesses about their own diminished prospects. To solve this problem, many non-Malay businesspeople have begun to actively court influential Malay politicians and senior bureaucrats to gain greater, if not equal, access (Gomez and Jomo 1999, p. 40). However, the participation of non-Malay capitalists in national industry projects plan is limited. Thus, with limited access to technology and capital, the grown of the non-Malay capitalist has been limited and most remain as SMEs. Presently, 97% of SMEs in Malaysia are owned by non-Malays, mostly Chinese.

While these efforts have substantially improved the economic status of the Malay community, business participation of the Malays in the private sectors and in non-government linked companies remains low. To highlight, 70.4% of CEOs in Malaysia are Chinese, while Malays comprise only 20% of the CEOs. While other ethnicities survive in the private sector, the Malays dominant the public sectors and government linked companies. Scholars and economists have noted that the special treatment given by government to the Malays has created a "subsidy mentality" among many *bumiputra*, having not given the opportunity to learn how to survive in the absence of government support.

5.4.2 Impacts on Malaysia's innovation-driven sectors

Several studies have demonstrated that Malaysia's race-based national policies are the main reason for the unsuccessful of technology-intensive industry projects (e.g Rasiah 2001; Jomo 2003). In government-linked projects, such as steelmaking and the manufacture of the national car, top management and employee recruitment is limited to ethnic Malay. Regardless of inexperience or limited technology absorptive ability, priority is afforded based purely on race. A meritocracy or performance-based system has not been adopted. Since major targeted technology- intensive industry of Malaysia government was automobile industry, case study of Proton was conducted to explore how the race-based collectivism has affected the company's performance. Other industries such as steel making, cement plant were also discussed in this section.

- *Case of Proton*

Proton automobile company, which was incorporated in 1983 was Malaysia's first national car company, and has been producing cars in Shah Alam since 1985. Proton is a subsidiary of the Heavy Industry Corporation of Malaysia (HICOM), which aims to improve the economic status of native Malays through industrialization. In an imitation of Korea's Hyundai automobile business model, Proton formed a joint-venture with Japan's Mitsubishi. With the support of the government, 70% of Proton's shares were owned by HICOM. To protect this infant industry, the Mahathir government raised the protectionist tariff by 300%, resulting in the retail price of Proton cars being much cheaper than imported cars.

To explain rather than subsidizing the cost of a Proton car and making more affordable for Malaysian consumers, the protectionist tariff only raised the costs of buying an imported vehicle. Consequently, purchasing a car in Malaysia is significantly more expensive than buying the same car in most other countries. For example, in 2013, the Hyundai Advante retailed at RM90, 000 (about US$30,000) in Malaysia, but in the U.S. the same make and model vehicle was being sold for less than US$20,000.

After nearly three decades, Proton is still considered as being an "infant" company by both its management and government backers, such that the government continues to afford the national car manufacturer an unparalleled level of protection. Rasiah (2001) observes that, as with most state-led ventures in Malaysia, Proton and its operations have been colored by national political concerns. The national car project is typically viewed as a product of Mahathirism, a project driven by the fervor nationalism in which Malaysia build its own car after witnessing the successes of Japan and Korea in the automotive industry. The national car project was initially conceived of by Mahathir, who initiated the project's feasibility study, when he was Trade Minister in late 1970s. Rasiah (2001) further observes that the establishment of the national car project was intended to create a platform for active participation of the Malays in a technology intensive industry, with an aim of improving the economic mobility of the Malays. Thus, a "Malay priority" policy was purposely adopted. From business partnerships, through to the whole production process, barriers were erected to limit the participation of other Malaysia ethnic groups in the nationalist

project. Before Proton and the national car project, the local automotive sector was dominated by ethnic Malaysian Chinese., So while there was a body of expertise already present in the country, Chinese capitalists who were already experienced in the automotive industry were bypassed for involvement in the national car project.

Jesudason (1990) noted that, "when the Malaysian government decided to build a national car, there were already eleven automobile assembly manufacturers in the country, mostly joint ventures between local Chinese car distributors and foreign principal". Jesudason (1990, p. 160) goes on the say, "there were good reasons for these companies to form the nucleus of the national car project. There was over-capacity in the industry, and these companies had accumulated considerable expertise and experience in basic car assembly. However, these existing companies were completely bypassed, and instead HICOM, which had been set up only in 1980, entered as a majority partner in a joint venture with Mitsubishi Motor Corporation of Japan". Jesudason (1990, p. 161) adds, "government officials often rationalize their policies by saying the state, in entering capital-intensive industries, is only doing what the Chinese will not do…Nonetheless, Chinese business spokesmen reject the idea that the Chinese are simply not interested in large-scale manufacturing projects." According to the Executive Secretary of the Federation of Malaysian Manufacturers (quoted Jesudason 1990):

> …The private sector will not go on its own into large-scale projects. But the government does not tell us what tariffs,

> subsidies, and prices it will allow for in any project. If they do that, we will make our own calculations and see if it's profitable. Many car assemblers would have been interested in the car project had the government announced the concessions it was willing to give. If the government keeps coming out with its own projects and doesn't tell us anything, how are we to get involved (161)...

Leutert and Sudhoff (1999) comment that while the ethnic-based policy may have contributed to political stability, it was economically problematic. Under the government's ethnic-based policy, more than 90% of Proton's employees at all level are Malay; although Malays only comprise 60% of the total population of Malaysia. A study by Jayasankaran showed that:

> …In 1988, the plant employed 1,300 people, 94% of whom were ethnic Malays. From 1983 – 1986, a total of 323 technical people were sent for training in Japan, of whom 90% were Malays, 6% Chinese, and 4% Indians. Most Proton personnel were inexperienced, while very few experienced workers laid off from other assembly firms-who were mainly non-Malays-were hired. The chief executive of Proton at the time, Wan Nik Ismail, was quoted as saying "if we wanted to employ such "veteran", we would have to get permission from the Prime Minister's Department (1993, p. 278)…

Proton's executive management had been restricted to Malays. Mahathir installed an almost exclusively Malay management team, while more experienced experts were excluded from the executive decision-making level purely on racial grounds. Similar ethnic profiles exist at the firm's five subsidiary and eight associated firms which are engaged in component manufacturing and car assembly (Rasiah 2001). In addition, joint venture operations in the Philippines and Vietnam rely on almost exclusively Malay management personnel (Rasiah 2001, p. 96). Similarly, components suppliers are also limited to largely inexperienced *bumiputra* firms. The resultant effect of this has been a relatively high rate of defects and poor consumer feedback (Rasiah 2001). Proton also suffered from a string of problems associated with mismanagement due to the recruitment and promotion of inexperienced managers. Jomo (2003, p. 86) observed that, "if experienced Malaysian managers of existing heavy industries - instead of civil servants - had been recruited as Proton managers, the management of Proton would probably have been more successful." Due to mismanagement resulting in recurrent annual losses the Malaysian government allowed Mitsubishi to control the company for several years in order to keep Proton afloat.

Government intervention and protectionism was aimed at preserving the industry's bumiputra management, but at the cost of production efficiency. Given the significance of ethnic politics in Proton's establishment and localization policies, the employment and economic development spinoff from Proton has strongly favored Bumiputras (Rasiah 2001). Rasiah (2001, p. 98) comments that,

"the consequent formation of a new business class can be viewed as a twofold process in which the Bumiputras have not only had to catch up with other ethnics industrialists, but also achieve competitiveness in the international arena". Jesudason (1990, p. 161) states:

> …One important conclusion from studies of late developers such as South Korea and Taiwan is that close collaboration between the society's corps of public administrators and entrepreneurs has been critical for their tremendous economic success. Malaysia's national leaders have not been unaware of the East Asian success and have even come up with their own slogans, such as "Look East" and "Malaysia Incorporated". Officials and politicians have appealed to those aspects of the model which stress the necessity for a strong work ethic rather than bringing up what the appropriate role of the state should be in facilitating development…

To transfer technology from foreign companies, Proton aligned itself with Japanese automobile firm Mitsubishi. However, the level of absorption of flexible modes of work organization has been superficial, as reported by Rasiah (2001). After decades of operation since 1985, Proton has not been able to demonstrate a coherent strategy for the application of lean production and collaborative work organization (Rasiah 2001). Due to the lack of skill and limited transfer of technology, Proton rarely produced an origin Malaysian-made car. Mitsubishi consultant, Hiroshi Satoh states that, "Proton took a short cut.

Instead of trying to start from scratch, we opted to use existing components and make modifications to the bodyline" (Jomo 2003, p.80). The Proton Saga, the first Proton car to roll off the assembly line, was essentially a four-door Mitsubishi Lancer Fiore, in 1,300cc and 1,500cc, with the cars being shipped to Malaysia in knocked-down kits and assembled locally (Jomo 2003). Ultimately, the partnership between Proton and Mitsubishi was a way for Mitsubishi to sell its own cars and components.

Until late 1990s, Proton's production capacity was limited to body and shell assembly, painting, and vehicle assembly. Research and development was generally limited to vehicle design and components development. The engine and gearbox continued to be imported from Mitsubishi. There has also been little participation by Proton in the development and customization of materials and parts supplied by foreign-owned firms, such as the air-conditioning, car stereo, antennae, metals, safety gadgets and so on. These sub-components of Proton cars are the responsibility of leading firms like Toyota, BMW, and Honda. Proton itself is still far behind on the technology frontier (Rasiah 2001).

To improve its management, Proton introduced a Japanese management style, Kaizen and Quality control circles (QCCs). It was hoped that these small QCC groups would contribute innovative ideas and solutions and ultimately improve production. Nonetheless, these Japanese models did not have the desired effect. Rasiah's (2001) research showed that Proton's managers lack a well-defined strategy to develop, or even implement, existing process technologies effectively. Even the Kaizen QCCs were themselves not implemented in an

effective manner. The lack of effective institutional coordination in Proton's launch and subsequent operations has been the prime obstacle to the effective adoption and development of technologies by the firm (Rasiah 2001).

At present, Proton is struggling to maintain its position in the domestic market and has suffered some staggering financial losses. In later 2005, Proton had to sell 60% of its share in debt-ridden Italian motorcycle company MV Augusta. These shares were bought in 2004 for 70 million Euros (US$84 million). But just one year later, when Proton was forced to offload these shares in 2005, they sold for just one Euro (US$1.2). As *The Economist* remarked, "Proton has always violated every principle of economics and car-making ….a firm born of nationalist ideals not commercial rationale, protected by old-style cronyism and never exposed to real competition. Like its creator, the best thing may be to let it go gently into retirement" (The Economist 6 May 2004). The "cronyism" described in the article continues among Proton's top management arrangement, where political linkage determines top executive appointments. For example, despite Mahathir's retirement 10 years ago and now aged in his late 80s, Proton appointed him as Chairman in May 2014 (Malaysia Insider 20 May 2014). Instead of appointing professional executive with experience in the automotive industry, the appointment of Mahathir as Proton's new chairman highlights the influence of political networking.

- *Case of Perwaja Steel and other industries*

Another of Mahathir's ambitious projects, Perwaja Steel, also attempts to mimic Korea's steelmaking project. But unlike the success of Korea's POSCO, Malaysia's Perwaja Steel represented a failure in the country's heavy industry plan. The Perwaja Steel project not only failed to meet its production targets and to transfer technology, but was marred by massive financial losses. From the beginning until the last, the Mahathir government tried to solve Perwaja Steel's management problems, but never succeeded. Unwilling to admit defeat, Mahathir said that the government was well aware of the difficulties of making handsome profits in the steel industry and was "prepared to lose money" (Furouka 2007). By 2000, the Perwaja Steel mill had suffered cumulative losses approximating 10 billion ringgit (US$2.7 billion); making it "Malaysia's most costly industrial failure and the biggest financial fiasco." Nippon Steel Corporation was charged with building a direct-reduction facility in the steel mill for Perwaja Steel. However, the direct-reduction plant did not function properly and was subsequently shut down. Nippon Steel eventually divested itself of its Perwaja Steel shares and abandoned the project. Even after major restructuring, Perwaja Steel suffered heavy liabilities (Furouka 2007). In addition, Perwaja Steel was found to be involved in a US$20 million corruption scandal. At the beginning of 2004, former Perwaja Managing Director, Eric Chia Eng Hock, was arrested by the Anti-Corruption Agency and charged with dishonestly authorizing Perwaja's payment of 76.4 million ringgit (US$20.1 million) to a Japanese company, NKK Corporation.

Mahathir's dream to modernize Malaysia with technology-intensive industries seems more and more like an impossible dream. In addition to car industry and steel making industry,, other heavy industries projects such as tin plate mill and cement plant also failed to become export oriented industry. In "Doctor in the House," Mahathir (2011) states:

> …I had been to Japan, Korea and European countries and seen the industries that they had there. The working and the running of modern industry were no mystery to me and I knew that if we truly wanted to, Malaysia too could industrialize. All that was needed was the willingness to learn and work hard. I identified the heavy industries that we should pursue: a steel mill to be built in Terengganu, a tin plate mill, a car factory and a cement plant in Langkawi…I did not think we would face too many problems establishing these industries…I overestimated the Malaysian capacity to learn how to operate a major industry… a lot of experience is needed in order to deal with any bugs and problems with the machinery (Mahathir 2011, p.329)…

The Heavy Industry plan was not successful. The cement industry was sold off in the late 1990s, the tin plate plant was also eventually sold off, and the steelmaking plant had become a nightmare project with heavy financial losses and corruption scandals. The national car was, and still is, still struggling to survive despite the protections being afforded to it by the government. In brief,

the government has shouldered massive financial losses due to the failure of the National Heavy Industry plan. Nonetheless, despite these many failures, Mahathir himself is satisfied with the state of heavy industries in Malaysia, saying, "things could have been better but we at least had engineering skills we did not have before…today the engineering industries have spawned a number of new products" (Mahathir 2011, p.334). Notwithstanding, the protectionism of Proton looks set to continue well into the future. In 2013, Mahathir stated that the national automotive industry must be protected with high taxes on imported cars in order to maintain the survival of the national car manufacturer (the Sun Daily 14 November 2013).

As discussed in the sections above, one of the chief problems inherent in the National Heavy Industry projects was the recruitment of inexperienced managers and unskilled workers. Under the NEP, Mahathir bypassed more experienced non-Bumiputra professionals to employ based almost entirely on the racial quality of being Malay. Many executive positions were filled from the public service. According to Mahathir:

> …In between developing these industries, I also had to make sure that Malays were participating at all levels. As far as possible, I wanted these industries to be run by Malay executives so that they could gain experience. They were usually drawn from our government officers, as the Government was usually the biggest, if not the only, shareholder of these ventures… many government officers

> retained their bureaucratic ways and unable to make quick decisions when needed (2011, p.333)…

In summary, a number of studies and scholars have observed that Malaysia's race-based policies have created inefficiencies and inequalities in the allocation of resources. Non-Malay ethnic groups in Malaysia, comprising 40% of the nation population, have not managed to develop brand names or climb up the technological ladder. And while the domestic economy grows, with much of that growth being driven by the efforts of minority ethnic groups, minority ethnic groups benefit little from government industry plans. Gomez (2008) argues that this growth might be driven by the lack of support from government, such support while well intended, invariably retarding the entrepreneurial impulse. Forced to fend for themselves, the minority ethnic groups in Malaysia have grown to safeguard Malaysian businesses and industries from foreign ownership and control. On the other hand, Malay-based companies which receive substantial governmental support have not able to catch up their Chinese counterparts and many of these 'supported' companies eventually shut down.

Wong (1990) argued that, the while the government may have used heavy industry and large enterprises to accelerate the advance of the Malays in modern commerce and industry, the predominantly Chinese-owned small and medium scale industries made little progress, and consequently missed opportunities to enter lucrative international markets because of the lack of political support. Rasiah (1999) also suggested that SMI support mechanisms have a lot of weaknesses due to their limited focus on supporting bumiputra/Malay-based

companies. The lack of bumiputra entrepreneurial experience has led to the poor management of government-linked firms despite continued support from the government via the SMI support program (Rasiah 1999). The rents offered by stated-sponsored anchor firms have not been tied to any time-bound performance standard, hence there has been little pressure to improve efficiency (Rasiah 1999). Jomo (1989) states:

> …The growing role of the state, especially since the NEP, has increased opportunities for various types of corruption. The phenomenon of money politics, for example, reflects the convergence of political and economic power, especially among the leadership of the major component parties of the ruling Barisan National (BN) coalition. It is now widely believed that most new opportunities for wealth accumulation are crucially determined by political access, rather than entrepreneurial ability (38)...

Economists have stressed the promotion of equality of opportunities as more important than the promotion of equality of results for pursuing efficient economic growth. Nevertheless, the Bumiputra-first ideology remains a part of current government policy. In 2013, the current Prime Minister Najib Abdullah announced the "Bumi Agenda" policy. Under the Bumi Agenda, over RM31billion (about US$10billion) in economic aid, loans, and programs would be made available to Bumiputra. The Bumi Agenda has the full support of government leaders. Deputy Prime Minister, Muhiyidin, said *that "*bumiputeras

need to boost their capability and be competitive in grabbing business opportunities through government programmes.*" (*New Straits Times 1 October 2013). Therefore, the growth of nationalism among Malay leaders has impacted upon the direct of public policy.

In short, this section identified how ethnic-based nationalism affected the development of the technology industry in Malaysia. Malaysia's collectivism is different from Korea's collectivism. As a multi-cultural society, Malaysia's collectivist spirit is limited to one's own ethnic group. This is in contrast to Korea, where Korea is one homogenous ethnic identity, one country. The collectivist spirit, inclusive of cooperation, team work, harmony, hierarchy, respect and loyalty are shared by both of these two cultures. But whereas the collectivist spirit worked very well in Korea during the early industrialization process, owing to Korea being a single-culture country; such gain were unattainable for multicultural Malaysia. In order to maintain harmonious relations between the various ethnic groups and to maintain dynamic economic growth, Malaysia has chosen an ethnic-based policy and it has been argued that this ethnic-based policy approach is what has undermined the growth of Malaysia's innovation competiveness.

5.5 Uncertainty Avoidance Culture of South Korea and Malaysia

Uncertainty refers to the possibility of unknown events happening in the future. Uncertainty includes risk, chaos, new inventions and new changes. Uncertainty is different from risk where risk is the possibility of something unpleasant happening, however, uncertainty includes unknown events, either positive or negative. According to Hofstede (2004), UA reflects the anxiety level of a culture in dealing with uncertainties. Uncertainty avoidance reflects the degree to which members of a culture feel threatened by unclear situation and how much they try to avoid them. Thus, high uncertainty avoidance culture normally expresses a stronger will to have control of own destiny rather than just accepting fate. In order to have better control, uncertainty avoidance culture applies more rules and is planning oriented. Low uncertainty avoidance culture is more comfortable with anxiety, expressing a higher level of tolerance towards uncertainty. They are relatively more flexible, relaxed, and less strict. In many cases, religion is one way to reduce anxiety and more at ease in accepting uncertainties. Overall, people in high Uncertainty Avoidance societies are socialized to follow rules, structured, hierarchical and keep everything in order. In a weak Uncertainty Avoidance culture, people are less strict and do not stick to rules and express a more relax attitudes towards changes. Moon and Choi's (2001) study indicated that discipline and frontierism are two elements emphasized in high UAI society,

such as preciseness, good public order, lower crime rate, entrepreneurship and less problem with corruption. Frontierism is an offensive way to avoid uncertainties while disciplinarism is a defensive way to avoid uncertainties (Moon and Choi 2001). Globe project of House et al. (2004) also found that the public sector in higher UAI society is relatively less corrupted due to the rules-oriented mind set. Study by Wennekers et al. (2007) showed that business ownership rates associated positively with the degree of Uncertainty Avoidance. According to Wennerkers (2007), uncertainty avoidance does not mean risk avoidance. It develops better entrepreneurship. Because the entrepreneurs' main function is by making judgmental decisions in the face of incalculable and uncertain business hazards (Knight 1921 cited Wennerkers et al. 2007). Therefore, entrepreneurs in high UA environment are more prepared in coping with uncertainties. Wennerkers et al. (2007) argued that high uncertainty avoidance countries push individuals striving for autonomy towards self-employment rather than be employed.

The degree of uncertainty avoidance of a society has a strong association with its past history and geographical environment. Inglehart and Welzel (2005) suggested that a values orientation of a society is affected by existential condition such as natural environment, socio economic level and historical experience. Experience in economic chaos, natural disaster, poverty and challenging climate teaches people that readiness to cope with these similar events is essential in future. For instance, to cope with natural threats, human develop new technology as a way of defense. To prevent economic chaos or any crisis in future, financial

regulation system needs to be tightened and enhanced; to cope with poverty, hard work and frugality are emphasized. Ability in dealing with uncertainties in life ensures better survival. Uncertainty is comprised of new changes, such as the emergence of new competitors, new products or changes of government policy. These are unpredictable events that may happen in the future. Thus, ability to deal with these changes should be developed, such as establishing a good system, law, investing in R&D, upgrading knowledge and skill and etc.

Korea is assumed to perform at a higher degree of Uncertainty Avoidance compared to Malaysia based on its living environment and the past experiences. As a country that has encountered various types of threats in the past, the Korean people have been taught to take threats more seriously, thus has a lower tolerance level towards uncertainties. Lyn and Hampson (1977) suggested that "…experience of wars and economic crisis lead to high degree of anxiety, which lead to higher degree of Uncertainty Avoidance." The GLOBE project by House et al. (2004) also indicated that temperate climate countries perform at a higher degree of Uncertainty Avoidance compared to tropical climate countries.

Malaysia, a country located in the hot and humid equatorial zone, is peaceful with rich natural resources and a relatively less painful historical past, and is assumed to have a lower degree of Uncertainty Avoidance. Fertile soils, tropical climate and rich in natural resources have made survival easier, creating an Uncertainty Acceptance culture in Malaysia. People take stress and threats relatively easier, and perform at a lower sense of crisis. The challenging climate in Korea, poor in natural resources, hostile neighboring country, experience of

wars and extreme poverty affect the people's worldview and value orientation. Threats are to be taken seriously; sense of crisis is higher, which have created the higher degree of Uncertainty Avoidance. People emphasize hardworking, strict rules, orderliness, and long term planning. It is hypothesized that the higher degree of Uncertainty Avoidance in Korea has helped it to progress faster economically compared to Malaysia, particularly in the field of technology development.

In this study, proxy values for measuring uncertainty avoidance index are value of thrift (indicate discipline and planning), determination and perseverance (long term or future orientation), independence (emphasize self-control and self-reliance rather than depends to others) and the importance of religion (religious belief help people to accept uncertainty). In an uncertainty avoidance culture, long term performance is highly emphasized which could be seen in their attitude towards saving money for the future, and how they value the importance of quality in independence and determination, which determines their capability in dealing with uncertainties and long term achievement. For a society which tends to accept uncertainty, a strong belief in unexplained power and religion is one way to deal with uncertainty. To believe in fate and put oneself to arrangement made by God helps a society to accept uncertainty more easily. However, for uncertainty avoidance culture, to be dependent on oneself is more effective in coping with uncertainty. High Uncertainty Avoidance culture places a higher value on efforts, for instance creating a new technology to cope with the limitations of nature, and work hard to enhance one's ability in dealing with

unknown events, establish a structured regulatory system to guard against any unpredicted shocks.

Based on the quantitative analysis's finding of this study, South Korea is categorized as a high Uncertainty Avoidance society with a score of 188 points (ranked 7th from among 57countries), while Malaysia is ranked as moderate with a score of 118 points (25th place from 57). Japan is ranked top and the scored highest in Uncertainty avoidance culture, followed by Germany, Vietnam, Taiwan, Slovenia and China. The countries with the lowest scores in uncertainty avoidance are Egypt, Peru, Jordan and Ghana which tend to accept uncertainties based on religious belief. The value data is obtained from the World Values Survey (2005-2009), based on the survey question asking respondent to choose the important quality that should have in their children. By just focusing on South Korea and Malaysia, the result of the values survey of each proxy values for uncertainty avoidance is as follows:

Table 5.5 Result of World Values Survey on questions related to thrift, determination, independence and religious faith

Values/ percentage of mentioning important in the aspect of _____ in child quality	South Korea	Malaysia
Thrift saving money and things (as uncertainty avoidance value)	73.1%	50.7%
Determination perseverance (as uncertainty avoidance value)	45.3%	33.3%
Independence (as uncertainty avoidance value)	68.3%	78.7%
Religious faith (as uncertainty acceptance value)	21.7%	59.6%

Source: World Values Survey Wave 5: 2005-2009

Based on the World Values Survey's result, South Koreans have a stronger emphasis on the value of thrift and determination while the Malaysians value religious faith and independence more with regard to their child quality. The overall result suggests that South Koreans hold stronger values of uncertainty avoidance. In other World Values Survey questions (2005-2009) related to uncertainty avoidance, the survey result is also consistent. For instance, on the question about "It is justifiable for someone accepting a bribe", 77.4% of Korean answered never justifiable but only 35.5% of Malaysian answered never justifiable. On the question of "Justifiable for avoiding a fare on public transport", 42.3% of Korean answered never justifiable and 22.9% of Malaysian mentioned never justifiable. In other words, even though accepting bribes and avoiding

paying for bus fare are violations of public rules, more Malaysians think that it is justifiable for doing so, but a majority of Korean are against violating rules for the reason of morality. This goes to show that Malaysians tend to be less strict on rules while the Koreans are more rules-oriented and less toleration on cheating.

Table 5.6 Uncertainty Avoidance degrees of South Korea and Malaysia

	South Korea	Malaysia
This study	Higher Uncertainty Avoidance (188)	Lower Uncertainty Avoidance (118)
Hofstede (2001)	Higher Uncertainty Avoidance (85)	Lower Uncertainty Avoidance (36)
Moon and Choi (2001)	Higher Uncertainty Avoidance	Lower Uncertainty Avoidance

According to Hofstede (2001), high uncertainty avoidance culture normally represents norms of higher stress, inner urge to be busy, loyalty to company, preference to work in large organizations, less tolerant to diversity and tends to be order-oriented and follow laws. These societal norms are matched with the characteristics of Korean society which are described as "hurry-up culture" (palli-palli) and stressful society. In comparison, Malaysia is often described as a diversity-oriented culture, slow, lenient, tolerance and lower work stress and the work environment is matched with low uncertainty avoidance. Malaysia as a country located in a region rich in natural resources with tropical climate, issues of survival have been much easier for the people. Therefore, it is not surprising to see the difference in expression of values compared to South Korea. Kwek (2011,

p. 211) suggested that "The Malay mindset has been characterized by a conservatism that encourages the sticking to old and tested ways; the avoidance of conflicts; a reluctance to deviate from community norms; and resulting in an inability to embrace change and creativity." The different degree of uncertainty avoidance between these two cultures is assumed to have significant impacts on their economic activities and competitiveness.

5.5.1 Uncertainty Avoidance, future orientation and R&D investment

In a traditionally high UA society, the focus is on long term rather than short-run result (House et al. 2004), hence future orientation values in high UA society. Hofstede (1980) suggested that individuals in high UA culture are more worried about the future, while individuals in low UA culture are better prepared to live by the day (p.176). In other words, high UAI is future-oriented and low UAI is more concerned about the present. Planning and saving is emphasized in Uncertainty Avoidance culture while Uncertainty Acceptance culture believes that future will take care of itself. House et al. (2004, p.606) mentioned that planning is an essential management tool to control uncertainty. Hofstede (1980, p.158) also stated that people playing a role in planning and control have a higher level of need to avoid uncertainty than others. To reduce uncertainty, certain form of services such as product warranties, insurance policies or investment plan is created (House et al. 2004, p.607). Ramirex and Tadesse's (2009) showed that firms in countries with high Uncertainty Avoidance hold more cash as a way

to hedge against uncertainties**.** GLOBE project also found that societies exhibiting a preference for high Uncertainty Avoidance have high cash holdings (House et al. 2004, p. 634).

The cultural traits of North Eastern Asian countries such as frugality and the high propensity to save are common among the Chinese, Japanese and Koreans. Among the ten countries with the largest foreign reserves, five are from Confucian countries, namely China, Japan, South Korea, Taiwan and Hong Kong. These countries are known for their long term oriented values, discipline and preciseness. A culture that is high on future orientation tends to be long term oriented and emphasizes financial planning. Individuals in this culture tend to counts more compared to low UAI culture. Readiness to deal with uncertainty in the future is emphasized. Individuals in high uncertainty avoidance culture think that the future is unpredictable, threatened by unknown situations, and saving is a way to manage financial risk and invest. Being thrifty requires strong will. Individuals in high UAI culture like Korea, children in Korea are taught to be thrifty but children in the Malay society learn more about tolerance and respect for other people. Malays are more present oriented while Koreans are more future-oriented. This is evident in the survey result of the World Values Survey global program.

Based on the World Values Survey wave 5: 2005-2009, 73.1% of Koreans mentioned thrift and saving money as important child quality against 51% of Malaysians mentioning the same thing. In a culture that has a higher level of anxiety, the Koreans tend to save more money for the future and emphasize the

importance of planning in their lives. Unlike Malaysians who tend to accept each day as it comes, Koreans are more concerned about the future. For instance, before Koreans decide to start a family and have children, they will consider the costs of education for their children, nursery cost, medical expenses and etc. However, Malaysians tend to profess a different attitude by believing that the future will take care of itself (Sarachek et al. 1984).

In society with low UAI culture like Malay, individuals believed that the future is too complex, vague, unpredictable and hostile; hence planning is difficult if not impossible. Whatever happen in the future is God's will, therefore human should take it easy, believing in God makes the Malay society easier to accept uncertainties. Therefore, it is not surprising to see the low birth rate among the Koreans and the high birth rate of Malays. In general, a typical Korean couple has two children but a typical Malay couple usually has three to five children. In the Malay society, having many children is not seen as a burden, but is seen as "blessing from God", children are seen as an "asset" and a kind of social security. The Malays believed that having a big family is a *rezeki* (earning) (Kadir 2007, p.30). Malays value their families more than anything else, let alone finance. Religious belief plays an important role in this regard. Even though having many children would be a financial strain that might affect the quality of care for the children, but the joy of having a big family overcomes the fear. Generally Malays are more tolerant of uncertainties and relatively more relaxed in facing anxiety. The differences in behavior are attributable to the different values and mind set, and religious belief.

Individuals in high Uncertainty Avoidance culture worry about the future, thus they save more and invest. Individuals in low Uncertainty Avoidance culture like in Malaysia tend to have an easy-come-easy-go attitude, and present-oriented. Jariah et al. (2004) conducted a survey on the financial behavior of Malaysian university students (sample size of 1500), indicated that more than 40% of the survey respondents mentioned that their spending habit creates problem and around 30% mentioned that they overspent. Spend thrift behavior among Malaysians is assumed to be strongly related to the degree of Uncertainty Avoidance. The difference between saving culture and spending culture has a significant impact on the economy. More savings meant more money for productive investment, contributing to availability of capital investment.

Table 5.7 Uncertainty Avoidance of Korea and Malaysia and investment

High Uncertainty Avoidance Culture (Korea)	Low Uncertainty Avoidance Culture (Malaysia)
Future orientation Higher anxiety level Mastery own fate, technology Disciplinism, rules, order, accuracy ⇩ More investment, planning, emphasize R&D	Past/Present orientation Lower anxiety, easy come easy go Belief on fate, adaptability, harmony More tolerance to uncertainties, less strict ⇩ Less investment, less R&D

Individuals in Uncertainty Avoidance culture seek to control their surrounding environment, while individuals in Uncertainty Acceptance culture seek to live in relative harmony with it. Mastery over the environment is an offensive way to defend against uncertainty, for example, human creates new technology to deal with uncertainties such as natural disasters and climate change. Hofstede (2001, p.146) stated that "…technology is a primary mechanism to defend ourselves against uncertainties caused by nature while rules helped to defend against uncertainties in the behavior of others." Individuals in high UAI culture take natural threats seriously and as a result, science and technology development is very much emphasized. Individuals in low UAI culture embrace

the concept of "some things are meant to be" and "easy come, easy go." They do not attempt to control nature, but rather "go with the flow", adapt and accept the surrounding environment (Moon and Choi 2001, p. 27). Individuals in low UAI culture tend to accept fate and rely on religion to deal with uncertainties.

As shown in the previous chapter, this study found that uncertainty avoidance has a strong and positive relationship with R&D expenditure, and most technology-driven economies are high in uncertainty avoidance. As a country high in UAI culture, Korea has invested a lot in research and development compared to Malaysia. Other high UAI cultures such as Japan, Germany and Switzerland also spend a lot of money in the research and development. Obviously the uncertainty avoidance values have affected policy making and strategies. This is shown in the World Values Survey result. Most Koreans think that technology development is very important, but Malaysians do not think so. For instance, based on the World Values Survey (2005-2009), 72.8% of Koreans thought that "More emphasized on technology in future changes" as a good thing while only 55.70% of Malaysian thought so. As to fate versus control, more Koreans thought that people shape their own fate and it is important for an individual to be adventurous and take risks (see Table 5.8). However, in a society where religious belief is very strong such as in Malay society, people believed that God shapes their fate and human do not have absolute control of their own destiny. Basically, Malays tend to believe that Man must live in harmony with nature. Abdullah (1996, p.19) stated that "Under the harmony concept, Malays

have to adapt and "take" whatever comes which induces an attitude of humility, non-confrontation, adaptability and even submission that makes life in the community easy and smooth." Being aggressive and adventurous in controlling nature is not a characteristic of Malay people. Instead, being gentle and accept things as they are seen as a harmonious way to protect Man itself. To live in harmony with nature is emphasized in the Malay culture.

Table 5.8 Uncertainty Avoidances' sub values of Korean and Malaysian (technology, fate and adventurous level)

		Korea (2005)	Malaysia (2006)
Future Changes: More emphasized on Tech	Answered Good thing	72.80%	55.70%
	Don´t mind	21.10%	41.70%
Fate vs control	People shape their fate themselves (tick highest scale 10)	14.5%	8.10%
It is important to this person adventure and taking risks	Very much like me	8.30%	5.50%
	Like me	17.50%	14.20%
	Somewhat like me	26.10%	23.00%
	Total	**51.9**	**42.7**

Source: World Values Survey Wave 5: 2005-2009

The World Values Survey's result shows that in general, the Koreans have more concern for technology development, more determined to master their own fate and more adventurous. Religious belief is not that important for many Koreans. These characteristics matched the high UAI culture and capitalist

character. Although Korea was a traditional agricultural society for more than five thousand years, Korean's belief and values had transformed with the introduction of capitalist ideals and the implementation of industrialization. Under the leadership of Park Chung Hee since 1961, a series of economic and cultural reformations was introduced.. Park Chung Hee believed that to modernize Korea, one has to begin with cultural changes and the promotion of industrialist spirit. Park Chung Hee (1979) stated that,

> …Western man, trying as always to discover the inner laws at work in nature as well as in human society, has seldom taken nature for granted. It was his philosophy to try to find ways to control nature. I believe that it was this spirit of science and pioneering that led to the foundation of Europe and the United States… there were the spirits that moved the West…Its rationalism and pragmatism are the strengths of the Western philosophy that we should absorb… however Korea's culture and traditions should choose only the strength and merits from the western cultures (Park Chung Hee 1979, p.32)...

Park Chung Hee (1979) stressed the creation of a progressive and future oriented culture, and this has certainly affected the formulation of the nation's development policy, the decision to develop technology intensive industries in Korea in particular. As a country facing various types of external threats, Korean leaders were concerned with the loss of competitiveness in the manufacturing of

light industrial products, the rise in protectionism, the gradual withdrawal of US troops stationed in Korea, and the attendant national security problems (Sakong 1991, p.50). The growing external threats had contributed to the initiation of the industry-specific and firm-specific HCI promotion drive in the early 1970s (Sakong 1991, p.50) To protect oneself against environmental uncertainties and external shocks, Park Chung Hee believed that Korea had no way out except to develope technology-intensive industries. Korea, as a country poor in natural resources and the constraints of inherited disadvantages, it has to depend on human capital to create its own advantage. Park Chung Hee's economic advisor at that time shared the same view and persuaded Park to reform the industries. For instance, in a briefing by Park's economy aide, O Won Chol, in 1973:

> …We have to reform our industrial structure, and expand the industry. It is essential that we nurture chemical factories, ship building and mechanical engineering companies, set up large-scale industrial complexes and introduce the latest technology… We can outpace North Korea by developing the heavy chemical engineering and armaments industry simultaneously (Choson Ilbo 1 September 2008)…

Agreed with what O Won Chol had suggested and based on its heavy industry plan, the Korean government embarked upon a program of technology-intensive industries such as shipbuilding, electronics, mechanical engineering, steel making, automobile, petrochemical engineering and nuclear power. The

Heavy and Petrochemical Industry policy was a success and the remarkable transformation of the economy enabled Korea to achieve the status of a newly industrialized country (NIC) in 1970 (Harvie and Lee 2003). Korea continued with its rapid growth during the 1970s despite the two oil crises, and by the late 1970s, it had even overtaken Malaysia in terms of per capita income. Within a single generation, the Koreans became the world's largest producer of handsets and home appliances, the second largest shipbuilder, the fifth largest car maker and the eleventh largest economy. Korea has successfully become an innovation-driven economy and very much dependent on the technology intensive sectors. The statistical tests in the previous section show that Uncertainty Avoidance has a positive relationship with innovation. The efforts of the Korean government in developing science and technology have been fruitful, particularly the investment in research and development. The future-oriented attitude of Korean leaders and policy makers was a significant factor in charting the direction of developmental planning. Currently, South Korea came in second among OECD countries in terms of R&D spending to gross domestic product. The Korean private sector is the major contributor in terms of R&D spending which stood at 3.09 per cent to GDP (Korea Herald 24 Oct 2013).

Malaysia, which is located in tropical climate zone, rich in natural resources, in a stable and peaceful region, is relatively more tolerant to uncertainty as evidenced by the descriptive statistics presented. Survival is easy and thanks to the fertile soil, comfortable climate and almost free of natural disaster. Mahathir (2011) stated that:

> …In the past, most Malays lived along the rivers where there was plenty of fish and other food. Life held no great challenge. If life is easy, you have no reason to try too hard to improve (Mahathir 2011)...

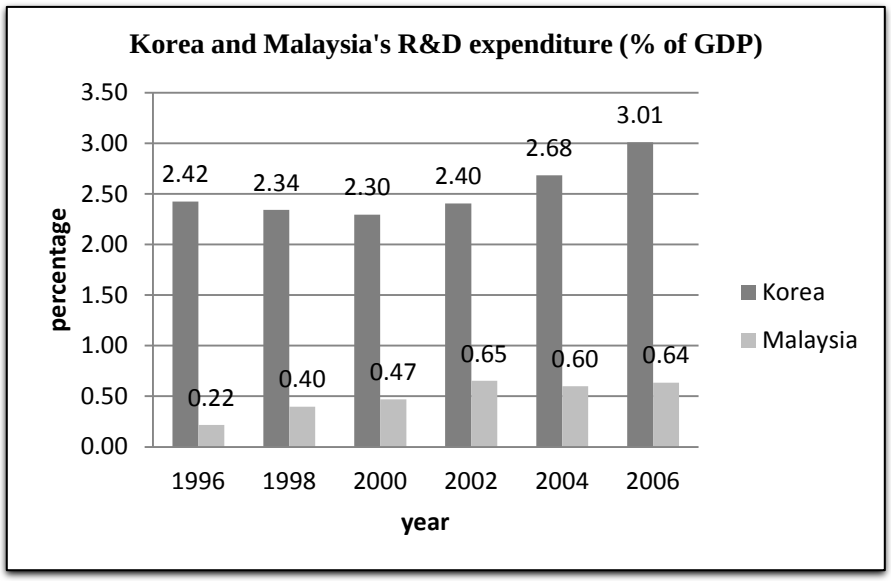
The dependence on the primary commodity sector is due to the comparative advantage Malaysia has in terms of natural resources. Before industrialization, Malaysia was not rich and starvation has never happened in the country. People were able to survive with the fertile soil and plentiful food supply as endowed by nature. Prior to the 1980s, the main exports of Malaysia were rubber, tin, palm oil, hardwood timber, and petroleum. In the 1960s, rubber accounted for two-thirds and tin for one-fifth of the total exports of the country (Cheng 2003). Manufacturing industry and the development of technology was not the priority then. In the mid-1980s, the primary commodity sector accounted for about one-third of the total output and contributed to about one-fifth of the growth of the economy during the period. The main engine of growth came from the mining and agriculture sector.

The prosperity in the commodity market was not sustainable. In the early 1980s, commodity crisis hit the Malaysian economy badly. In 1985, the market price for all Malaysia's main exports - petroleum, palm oil, rubber, tin and cocoa - collapsed, prompting a deep recession that lasted into 1987. After the crisis of the mid-1980s, UAI was slightly up with the improvement of rules and policy, as well as promotion of technology development. Policy has essentially shifted from an inward-looking, domestic-oriented strategy to one that was outward-looking.

FDI was promoted by the government and Mahathir's Look East Policy began in 1982. As a result, foreign investment increased steadily since early 1990s, which leads to the growth of in the manufacturing industry. Under the Look East Policy, the Malaysian government promoted heavy and petrochemical industries as what the South Korean government did in 1970s. As discussed in the section above, the heavy and petrochemical industries were less successful compared to that in South Korea. The lack of cultural support such as a disciplined and hardworking labor force was one major factor.

The World Values Survey result is consistent with the hard data obtained from the World Bank, which reflects the consistency of value with real behavior. As shown in Figure 5.5, the data show that R&D expenditure to GDP ratio of Korea is much higher than that of Malaysia's. Korea continues to invest heavily in R&D. The ratio increased from 2.42 per cent in 1996 to 3.01 per cent in 2006. Large conglomerates in Korea contributed to the major portion of Korea R&D expenditure, Samsung, Hyundai and LG in particular. Electronic chemicals and machinery industries are the major focus of the R&D activities. Compared to Malaysia, Korea also performs much better in terms of ratio of technician, expenditure and publication in journals. The Malaysian economy has been dependent on FDI, agriculture and natural resources (oil and gas, forestry). As a consequence, technology development has been much slower.

Figure 5.5 Comparison of R&D's expenditure between Korea and Malaysia, 1996-2007



Source: World Development Indicator

As shown in Figure 5.5, the R&D expenditure to GDP in Malaysia was less than one per cent for many years. Although the figure has been improved, however the growth rate has been very low. In comparison with Korea, private industry participation in R&D in Malaysia has been low. For instance, in the early 1980s, the private sector contributed only 10 per cent to total national R&D expenditure (Nesadurai 1994). As a production-based economy, Malaysia's private sector consisted of mainly SMEs and their involvement in R&D is limited. R&D activities have been the domain of public universities and government funded research related institutions. However, private companies rarely benefit

from national technology policy. Nonetheless, the Malaysian government has been the main contributor to R&D, the economic impact of public sector R&D has been limited. For instance, a government survey of 5,232 research projects carried out during the 1990s in public research institutes and universities found that only 5.1 per cent had been commercialized (Felker and Jomo 2007, p.132). In addition, the total number of patent applications from Malaysia also indicates that the involvement of Malaysian citizen in R&D is extremely low. For example, in 1999, Malaysian residents accounted for only 3 per cent of all patent application filed in Malaysia (Felker and Jomo 2007, p. 132). This demonstrated that non-residents are the major contributors of new inventions registered in Malaysia and the development of technology by locals has been particularly weak.

In comparison, the Korean government and private sector take a keen interest and pride in R&D. Since the 1970s, under the leadership of Park Chung Hee, the Korean government has cooperated with the private sector closely in the development of new technology, particularly in R&D. Korean R&D promotion policy was initiated in 1972 under the Technology Development Promotion Law. To promote private R&D, the R&D promotion policy was amended in 1981. Since then, Korea's R&D expenditure to GDP increased significantly and attained a level similar to that of the Western countries in the 1990s, including Germany and France (Sakakibara and Cho 2000, p.11). Various measures were taken to promote R&D including tax deductions on R&D expenditure, tax deduction on import technology use, and low interest loan for R&D,

establishment of national research institutes and etc. As a result of these measures, participation and cooperation among Korean firms to conduct R&D increased, and driven by large Korean conglomerates. For instance, the contribution of private firms to Korean R&D expenditure was about 80 per cent in 1990 (Sakakibara and Cho 2000). Samsung, Hyundai, POSCO and LG have invested heavily in research and development.

Besides carrying out their own R&D at firm level, Korean private firms also worked together with academic institutes, for instance, in POSCO, to meet the needs of self-developed technology to be independent technologically. POSTECH and RIST (Research Institute of Industrial Science and Technology) were established by POSCO (POSCO 2013). Founder of POSCO, Park Tae Joon, recognized the importance of R&D and established the Pohang University of Science and Technology (POSTECH) in 1986, and the Research Institute of Industrial Science & Technology (RIST) in 1987, thus establishing the three-axis system of industry-academia-research through POSCO-POSTECH-RIST. In the past four decades, POSCO acquired numerous patents and enjoyed the fruits of its R&D investments. For example, to keep the cost low and produce top-rated products, POSCO developed a new process called FINEX. This new technology allowed POSCO to reduce its production cost substantially. In collaboration with the Pohang University of Science and Technology, POSCO made significant contributions to innovation in Korea. In 2012, Pohang University of Science and Technology was ranked in the Thomson Reuters 2012 Top 100 Global Innovators

list attributable to its number of new inventions. The Korean government has played a significant role in supporting the R&D of academician institutes.

Korea's top multinational company - Samsung Electronics - invested heavily in R&D throughout the 1980s and 1990s, despite the severity of the industry cycle shows how differently Samsung Electronics' leadership perceived the industry potential (Lee and Slater 2007). Samsung Electronics continued with its huge investments in the technology, which finally paid off when the industry rebounded in 1999. The commitment to DRAM investment is a characteristic of entrepreneurial behavior: to seek rents that can be won in a high risk venture (Lee and Slater 2007). Even though facing significant uncertainty about the future state of the DRAM industry in the mid-1990s, Samsung Electronics decided to take its own path to develop the next-stage DRAM chips, resulting in global leadership. Samsung's R&D team, comprised mainly of Korean-Americans with Ph.D in electronic engineering, succeeded in developing 64 K DRAM and helped Samsung to be the leader in the DRAM industry in 1992, and Samsung has maintained the leadership position since then (Siegel and Chang 2005). Samsung's persistent effort in the development of the DRAM technology and pooling its resources to crack its own technology is in line with the strategic decisions taken to meet the challenges posed by the other firms in Asia (Lee and Slater 2007, p. 251). Over the years, Samsung Electronics had invested more than 20 percent of its net income in R&D, which is the highest R&D among the major semiconductor competitors. This company policy, specifically geared to expand and support R&D, is one of the resources and capabilities that have enabled

Samsung Electronics to reach the top-tier of technological leadership in the semiconductor industry (Lee and Slater 2007).

The high R&D investment of Samsung Electronics is associated with the high uncertainty avoidance attitude of its leader. Yun Jong Yong, the former CEO of Samsung, played a significantly role in taking Samsung Electronics to a new level was famous as the "chaos-maker", as he tried to encourage a sense of crisis to drive change. Yun Jong Yong stated that, "We instilled in management a sense that we could go bankrupt any day". For Yun, getting ready to cope with changes in technology in future industry is crucial; therefore investment in research is a must. When he was interviewed by the New York Time in 2005, he said that Samsung was getting ready for digital convergence, where lines are blurred between televisions and computers, where cellphones are also cameras and digital music players. "I can tell you that the day is coming, and we are preparing…" Yun said (New York Times 9 July 2005). In 2005 alone, Samsung made $10 billion in capital investments (New York Times 9 July 2005). Yun's famous quote is "…you must constantly change and adapt to a new environment". Although financial resources were urgently needed to support SEC, Yun decided to take a different approach and continued to invest in R&D (Schmitt, Probst and Tushman 2010). Yun realized that suspending any investments in the DRAM technology could result in the company permanently losing the company's position as the leader in DRAM technology. He knew that their competitors in the memory chip market were withholding investment due to the poor economic condition. This passivity offered an opportunity to further develop Samsung

Electronics' long-term technological strengths in the semiconductor business. For instance, Samsung invested $100 million in the manufacture and assembly of, and test sites for, its next 72-Mbit DRAM chips (Weld 1999). These investments enabled process innovation and sustainable cost reductions. With so many uncertainties in the market, Yun also believed that Samsung Electronics needed to decrease its overall reliance on the semiconductor business (in 1995, memory chips accounted for about 90% of the company's profits and almost half of its sales). With further investments in new business segments, Yun aimed at balancing the company's future business activities (Schmitt, Probst and Tushman 2010). Yun has proven that he was right with the substantial rise in Samsung's sales and profit afterwards.

McGrath (1997) believed that R&D investment enabled firms to change their product attributes more rapidly than competitors. Bowman and Hurry (1993) also mentioned that firms with flexible capabilities have the advantage of outperforming competitors under situations of environmental change. The case of Samsung Electronics revealed how a firm's flexibility to concurrently explore and exploit was a key aspect in its successful response to the emerging market threats and the opportunities that the Asian crisis presented (Schmitt, Probst and Tushman 2010). Yun's uncertainty avoidance attitudes had certainly played a significant role in enhancing the Samsung competitiveness. Samsung group chairman, Lee Kun Hee, also demonstrated similar values and attitudes. Lee stressed the importance of coping with rapid changes by making one prepared for the changes. Even though Samsung Electronics has made substantial profits in

recent years, Lee Kun Hee (2014) urged Samsung employees to be ready for new changes by mentioning that;

> …We stepped up our investment and focused on technological development to further sharpen our competitive edge and come up with better business result…we have to renovate ourselves again, because the business models and strategies, hardware processes and corporate culture of five and 10 years ago do not work any longer. Let's get rid of old-fashioned ways of thinking, systems, and practices. We need to break technological and market limitations in order to take the initiative amid prevalent uncertainties… we need to create new technologies and new markets with a long term view oriented toward industrial and technological convergence (Lee Kun Hee cited Business Korea 3 January 2014)...

With uncertainty avoidance attitudes, Korean entrepreneurs strongly believed that by constantly adapting to changes is significant. Readiness and well preparedness for any new technology shift in the future is crucial for firms to maintain sustainability. Therefore, it is not surprising to see the continuity of heavy investments in R&D by Korean firms as a way to be prepared for uncertainties. These have shown that the values and visions of a leader, either at

national or firm's level, have strong influence on the direction of technology development.

In addition to R&D, the Korean government also promoted the development of human capital to support high tech growth, work force trained in science and engineering in particular from technical colleges and higher institutions of learning. The 1995 Human Development Report (1995, p.174) showed that enrolment in technical streams at the secondary level for the period 1988-1991, 18.6 per cent of its secondary students were enrolled in technical training while Malaysia had only 2.2 per cent (Goh 1999). Although the Malaysian government's targeted ratio of 60/40 with 60% of high school students in the science stream; however, the enrolment of students in the science stream in Malaysia has been very low for many years (27.7 per cent for the year 2000) (Malaysia Education Development Plan 2001-2010). The majority of Malaysian students are not interested in the sciences due to its difficulty level, which involved a lot of mathematics where most of Malaysian tends to avoid. To increase the enrolment of students in science and technology, the Malaysian government planned and built many residential, technical/vocational schools, expanded the provision of technical and vocational education in normal schools. Nonetheless, the result is unsatisfactory. As a country with a low UAI culture, Malaysians prefer less stressful lives, accepting challenges is something not called for. As a result, science-based subjects are not a popular choice among students. For instance, in the 1990s, only about 20 per cent of the total number of secondary school population was enrolled to study science-based subjects. Of the

total number of university students, majority of the students majored in the arts and social sciences, with less than 30% majoring in science and engineering (Sixth Malaysia Plan 1991). Goh (1999) commented that with this current trend, Malaysia will continue to face difficulties in climbing the technology ladder. It affects the technology absorptive ability of Malaysia human resources base. With the small number of qualified technicians and engineers, it explains why technology transfers from foreign companies have been very limited so far. Foreign companies and foreign joint ventures often find difficulties in getting the skilled engineers and technicians required, particularly students who graduated from local public universities. Table 5.9 below shows the number of technicians in R&D and publications in science-based journals by academicians in Korea and Malaysia. Compared to Korea, Malaysia shows a lack of human capital to support technology growth.

Table 5.9 Number of technicians in R&D and publications in science-based journals

Technicians in R&D (per million people)	1996	1998	2000	2002	2004	2006	2007
Korea, Rep.	635	534	457	499	585	587	720
Malaysia	31	43	40	57	63	44	
Scientific and technical journal articles	1996	1998	2000	2002	2004	2006	2007
Korea, Rep.	4,771	7,057	9,572	11,735	15,255	17,910	18,467
Malaysia	362	387	460	495	586	724	808

Source: Word Development Indicator

In Korea, to meet the growing demand for labor in the technology-intensive industry, the government implemented various incentives to induce the students to enroll in science and technical education. Since the Park Chung Hee government began the Heavy and Petrochemical Industries Plan, the government established mechanist high schools to train precision-machinery workers. In 1976, the government designated eleven technical high schools in which some 2,000 skilled technicians were produced annually. The government also establishes specialized technical high schools in order to meet the demand of electronics, chemical and construction technicians and engineers. Technical education emphasizes a match between technical training and specific manpower needs in heavy and chemical industries (Shin 2003, p.103). With the enactment of the

Special Law for Vocational Training in 1974, a mandatory training scheme for enterprises with 500 or more employees was introduced. Under the law, firms are required to provide six-month in-plant training for the skilled workers of 1987(Shin 2003, p.103). Overall, the efforts of the Korean government in promoting science- and technology-based manpower have been successful; as shown in Table 5.9.

5.5.2 Determination, hard work, and education performance

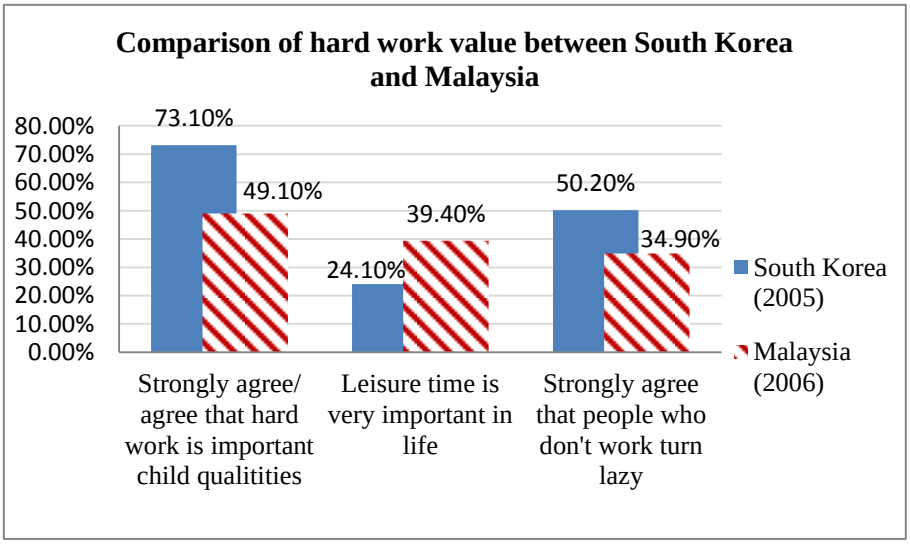
An inner urge to work hard and be busy is a UAI societal norm, and hard work is not a virtue *per se* in a low UAI society (Hofstede 2001). Due to the higher anxiety levels in uncertainty avoidance culture, working hard to perform is one way to cope with stress. Time is money for a high UAI culture, leading to a hurried social life and higher energy release, meaning an inner urge to be busy (Hofstede 2001, p.159). The satisfaction degree towards lives tends to be lower and people generally are afraid of failure. To cope with stress, high UAI people seek clarity, performance, structure and accuracy, while a low UAI society is comfortable with chaos and vagueness. Thus, Moon and Choi (2001) have suggested that a high UAI society tends to be more disciplined and orderly. Moon and Choi (2001) also stated that high UAI societies are not only diligent and disciplined, but at the very frontier of success. This is a way to cope with the stress of being a failure or facing uncertainties. In Korea, a country known as a stressful and hurried society, the traits of social culture are matched with

uncertainty avoidance characteristics. Work is central in Korean life and to be busy with work is a virtue *per se*. In Malaysia, a country which tolerates more ambiguity, work is not central to life and they see the beauty of slowness, therefore enjoying a more relaxing life style.

Inglehart's World Values Survey (2005-2009) revealed that Korean people are more emphasize value of hard work compared to Malaysian in general. World Value Survey (2005-2009) findings reveal that 73.10% of Korean agreed that "Work Hard" is an important child quality, while only 49.1% of Malaysian agreed. More Koreans think that people who do not work become lazy, while more Malaysians think that leisure time is very important in life (see Figure 5.6). Therefore, it is not surprised to see that Korean people are very much hard working and committed to work. Various studies have shown that the success of South Korea may in part be due to the industriousness, ability, and commitment of Korean workers (Kim 1994; Kim and Park 2003). In Malaysia, a hard-work ethic is not implanted to the same degree as among the Koreans. In Malay society, success is definitely not equated with hard work, although a more subtle form of diligence is discernible in the nurturing of deep relations with colleagues and family is highly prized (Lewis 1996). Enjoying time with family is a central part of life and is seen as more important than work. Spending long hours at work and coming home late is not a virtue *per se* in Malaysian society, but is respectable in Korean society. The former Prime Minister of Malaysia, Dr Mahathir, wrote in his book "New Malay Dilemma" that working hard and taking risks is not a part of Malay culture. Thus, it is not surprising to see that the WEF competitiveness

report (2009) identified Malaysian's poor work ethic as a problematic issue from an economic perspective.

Figure 5.6 Comparison of hard work value between South Korean and Malaysian



Source: Figure constructed based on the World Values Survey Wave 5: 2005-2009.

The hard work value of Korean and Malaysian are consistent with real working hours. Based on data from the International Labor Organization, Korean working time is longer than Malaysian. For example, the annual number of hours actually worked per person in 1994 for Malaysia was 2244 hours, while for Korea it was 2651 hours. Currently, Korea is ranked as the world's hardest working nation, according to OECD's research. There are many examples showing the hard work culture of Korean people. The following example quotes

a Forbes news article from 21 May 2008, describing how typical Korean office staff works every day:

> ...Mr Lee, a civil servant at the ministry of agriculture and fisheries, gets up at 5.30 am every day, get prepared to work, reach office by 8.30am and usually leave office at 9.pm or even later… This happens six day a week, and throughout almost all of the year, as Lee gets just three days of vacation. To explain why Lee work overtime, Lee told that: "It is the culture, we always watch the senior boss thinks of our behavior. So it is difficult to finish at a fixed time. Leaving at the official time of 6p.m could mean not getting a promotion or raise paid. If I took a month's vacation, my desk would surely be gone when I got back (Forbes 2008)…

In Malaysia, the work culture is different. Malaysians value rest more than work. For Malaysian government servants, daily work hours are fixed at 9 hours, either from 8am to 5pm, or 8.30 am to 5.30pm, and workers usually return home on time. For the private sector, annual leave is around 12-20 days, but for government servants it is up to 30 days, in addition to public holidays. As shown in the World Values Survey, 40 percent of Malaysians think that leisure time is very important in life. This has contributed to a more relaxing work culture of Malaysia. To be busy is not a virtue *per se* in the Malaysian society. This may attributed to the traditional culture, or because of rich natural resources, fertile soil, or the tropical climate. Historically, Malaysia has never experienced any

starvation or extreme poverty. Survival is relatively much easier than Korea. As pointed out by Mahathir (1970) in the book of "Malay dilemma", the Malay race evolved in an environment of tropical plenty, where hard work and an entrepreneurial spirit were not needed to earn a basic living. Malay farmers need to work only two months a year to grow enough food to survive. Mahathir (1970) stated that combined with rural isolation and "inbreeding", this explained a racial disposition that was "easy going and tolerant" (Kahn 2006, p. 111).

Korean ethnic was formed by generations of uncertainty, difficult environmental conditions and wars. When Korea started its own industrialization from 1960s, Korea was one of the poorest countries in the world with GDP per capita less than USD100 annually. Thus, in order to gain foods and shelter for home, hard work is the only way. During instable times, securing a job is the most urgent priority. Wage and works conditions are not as important. In the initial stage of Korean industrialization, Korean labors had very long working hours with few holidays and low wages. Milliman, Kim and Glinow (1993) suggested that Korean work more hours than employees in any other country in the industrialized world and take less vacation than workers in Japan, the U.S., or Germany. Korean athletes are also known for training day and night to win gold medals; the best example is figure skater Kim Yuna, who is well-known for her harsh training regimen. The high level of labor productivity by South Korean industrial workers has been one of the most important factors of industrialization and growth. (Huntington 2000; Kim and Park 2003). Korean entrepreneurs such as Chung Ju Yong and Lee Kun Hee are famous for their diligence. Chung Ju

Yong, the group CEO, often visited Hyundai's project sites by himself to ensure that the work was done properly. From major construction project to ship building, Chung Ju Yong was never tiredly supervising the work process himself. As Kim (2000) stated in the book entitled "The road to Hyundai", "Korean are a people never satisfied with what they had achieved, and always full of new ideas to get solution". This lack of satisfaction is consistent with its uncertainty avoidance culture. They are not satisfied with what has been achieved lead to higher level of works. The Korean dream is not limited to becoming a local 'champion', but to be the best in the world. Desire to achieve big encouraged its people to work harder and smarter. From the construction sector, ship building, steel making, automobile and to electronic industries, Korean firms have successfully gotten on top of the world in one generation. This demonstrates that the differences of values for work and leisure have substantially influenced the economic progress of the country.

The uncertainty avoidance has associated with the "palli-palli" (being fast) culture of Korea. Basically, Koreans believe that being quick and fast may save costs. This belief has been adopted in many Korean firms' management themes. For instance, the success of Hyundai management is attributed by their "quick ability", with the delivery of goods and service before rivals. Hyundai founder, Chung Ju Yong, stated that to compete with other international rivals, Hyundai has to deliver something different from competitors. To achieve this, the management theme is quick delivery with good quality and lower prices (Kim 2000). Chung Ju Yong stated that the ability to work fast is one of the main

strengths of Hyundai. It has contributed to the high productivity which leads to higher income growth. The LG Electronic has also pursed the Fast Growth strategy, which aiming fast growth and fast innovation. Under the Fast Growth strategy, LG believe that it help to expand market size and earning quickly; and the Fast Innovation strategy involves setting extremely high innovation goals and securing a competitive edge, aiming for a target of 30 percent more than industry rivals can do. Under the Fast strategy, LG want to ensure 30 percent more sales, more new product and technology development that are faster by 30 percent than competitors. The "quick" (palli-palli) culture of Korea which stresses "fast" undoubtedly has help the Korean technology-intensive firms to compete in the fast change industries.

The hard work cultures of Korean do not belong to working population only. Korean students are also famous for their long study hours, particularly among high school students. According to a report by Korea's Ministry of Health, Welfare and Family Affairs, Korean youth study an average of three hours more per day than adolescents in 30 other OECD member countries (Choson Ilbo 10 August 2009). According to the report, Korean youth spend around 7 hours and 50 minutes at school per day (see Table 5.10), which means Korean students are required to stay the whole day at school.

Table 5.10 Korean youth (age between 15 and 24) study hours compared to other countries

	Korea	Japan	German	British/UK	Malaysia	OECD average
Study hours at school per day	7 h 50 min	5 h 21 min	5 h 4 min	3 h 49 min	5 h	5 h
Time spent on private tutoring per week	1 h 59 min	22 min	19 min	16 min		

Source: Comparative study on the life patterns of children and adolescents by the National Youth Policy Institute, Choson Ilbo 10 August 2009

There are many examples indicate the long study hours of Korean students. An example taken from the Korea Times show a Korean high school student's daily schedule as follows:

> …A student gets up at 6 a.m. and reads the newspaper to get an idea on how to write essays. He goes to school by 7 a.m. and studies English words and does English listening practice for an hour. He attends classes until 1 p.m. and has lunch for an hour. He attends classes for three more hours, and works on a quiz until 5:35 p.m. He watches lectures on EBS TV for an hour before having dinner, studies at school until 9 p.m. and then comes home and continues to study until 12:30 a.m (Korea Times 6 August 2009)…

Another example was given by Hwang Yu Han (2001), as illustrated in the following story, which also demonstrates how hard the Korean student's common life is.

> …Daily dorm life at school was similar to military life. We woke up at 5:00 a.m., cleaned our room, washed our faces, jogged around the playground five times, and then studied 2 h before breakfast. We had about 30 min of free time between breakfast and when school started. School usually started at 8:00 a.m. and ended around 5:00 p.m. We ate dinner soon after school ended and then prepared for evening study, which often lasted until 11:00 p.m.… After evening study, we often had late dinner, which allowed us to sleep well. We usually went to bed after midnight. There were not many students among us who went home on Saturday afternoon when school was over. Sunday was the only day we could have some sort of private life... Why did I study so hard? The answer is simple. I studied hard to pass the entrance exam of Seoul National University (SNU). Why was my goal SNU? I believed that my socioeconomic status as a son of a coal briquette deliveryman could be promoted by entering the most prestigious university. I believed that passing the SNU entrance exam would guarantee my job, finances, house, family, and future…

> This was why students were willing to sacrifice their time, energy, and money as an investment into their future… many South Koreans still believe that if one passes an entrance exam of a prestigious university, his or her future is one that is guaranteed (Hwang Yu Han 2001, p.616).

The story above demonstrates how much Korean society stresses educational achievement and survival. As a competitive culture, succeeding in education is vital to ensuring the survival in the society. By enhancing ability and performance through education, it will be able to help in dealing with future uncertainty and ensuring survival. Particularly since the 1997 crisis, Korean people have stressed more on children education achievement. Korean parents continuously place children education as number one priority in life planning. This is evident in the high spending on education fees for children. For a high UAI society, the uncertainty inherent of life is felt as a continuous threat that must be fought, and strengthening individual ability is one way to fight this potential threat. An inner urge to work hard is valued highly by the society and seen as necessary for well living. As supported by the previous section in this study, high UA cultures' students achieve better academic performance. The test result show that Uncertainty Avoidance index is highly related to academic achievement as measured by 2009 PISA results, with correlation efficient at 0.7796. It is believed that hard work values, discipline and future-oriented attitudes have contributed to the students' study attitude.

It is further proven with the statistics test in this study. Most of the high Uncertainty Avoidance cultures such as China, Finland, Japan, Germany, Norway, S. Korea, Sweden and Switzerland are top performer in student academic score (PISA). Low UAI cultures such as Latin American countries (such as Argentina, Brazil, Chile, Columbia, Peru, Mexico) have shown poorer performance in terms of student academic score. Interestingly, the Confucian bloc cultures –Japan, Hong Kong, Korea, Macao, Shanghai, Singapore and Taiwan, which stress values of determination and hard work - have continuously topped the list in the ranking of the PISA from 2009 to 2012, as shown in the Table 5.11.

Table 5.11 Students performances in mathematics, sciences and reading in OECD's PISA[18] list

Year 2012					
Rank	Mathematics mean score		Science mean score		Reading mean score	
1	Shanghai China	613	Shanghai	580	Shanghai	570
2	Singapore	573	Hong Kong	555	Hong Kong	545
3	Hong Kong	561	Singapore	551	Singapore	542
4	Chinese Taipei	560	Japan	547	Japan	538
5	**South Korea**	**554**	Finland	545	**South Korea**	**536**
6	Macao China	538	Estonia	541	Finland	524
7	Japan	536	**South Korea**	**538**	Taiwan	523
51	**Malaysia**	**421**	**Malaysia**	**398**	**Malaysia**	**420**
Year 2009					
Rank	Mathematics mean score		Science mean score		Mathematics mean score	
1	Shanghai China	600	Shanghai	575	Shanghai China	556
2	Singapore	562	Finland	554	South Korea	539
3	Hong Kong	555	Hong Kong	549	Finland	536
4	**South Korea**	**546**	Singapore	542	Hong Kong	533
5	Taiwan	543	Japan	539	Singapore	526
6	Finland	541	**South Korea**	**538**	Canada	524
9	Japan	529	New Zealand	532	New Zealand	521
57	**Malaysia**	**404**	**Malaysia**	**414**	**Malaysia**	**422**

Source: OECD

[18] Program for International Student (PISA) 2012 is the OECD program's 5th survey. It assessed the competencies of 15-year-olds in reading, mathematics and science (with a focus on mathematics) in 65 countries and economies. In 44 of those countries and economies about 85 000 students also took part in an optional assessment of creative problem solving.

Education specialist such as Lianghuo Fan, head of Science Education Research Centre in Singapore, have commented that, "In all high-performing countries, students overall showed strong motivation towards learning, which is particularly evident in the subjects, Mathematics and Science. Those countries also have a very supportive social environment for education. For example, parents place more value on their children's education and have higher expectation, which will affect students' attitude and their behavior in learning". (The Star Online 8 December 2013).

PISA study also suggests the similar view, where student's motivation of learning is significant factor of success. PISA (2014) stated that, "when students believe that investing effort in learning will make a difference, they score significantly higher in mathematics… the large proportions of students in most countries consistently believe that student achievement is mainly a product of hard work, rather than inherited intelligence, suggest that education and its social context can make a difference in instilling values that foster success in education". The PISA study showed that among the highest-achieving students in OECD countries, those who strongly agreed that they can succeed in mathematics if they put in enough effort show a performance advantage of 36 score points over students who did not agree. The PISA (2014) study showed that students' perseverance attitudes have a positive relationship with mathematic score, demonstrating that a commitment to hard work is an important factor for education achievement. It is consistent with the case of South Korea, where subject of mathematic is always the most important subject for Korean students.

In comparing to Korea, Malaysia has scored much lower in mathematics and science subjects. For many years, Malaysian students have shown low interest on mathematics and science subjects. This is evidenced by the low number of science stream students (less than 30 per cent) in Malaysia high schools. Based on the PISA test, average score of Malaysian students on reading (56%), mathematics (41%) and sciences (57%) literacy scaled below the average attained by all OCED countries. This compares to 80% above in the OCED countries, on average. Malaysia's 15-year-olds were not only found to be below the international average in the three critical subjects, but also four to five years behind their peers in Shanghai, Singapore, Japan, South Korea, Hong Kong, and Taiwan.

The poor performance of Malaysian students in PISA test has drew attention of Malaysian government. Although Malaysian public spending in education has been the highest in the East Asian region over the past few decades, the result is unsatisfactory as compared to top performing countries like Singapore, Japan and South Korea. In 2011, the Malaysian federal government's spending on primary and secondary was 3.8 per cent of GDP, or 16 per cent of total government spending, which was not only higher than the OECD average of 3.4% of GDP and 8.7 per cent of total public spending respectively, but at par with or more than top-performing countries (Malaysia Education Blue Print 2013-2015). In 2012, with an education budget of RM36 billion, Malaysia government has continued to allocate the largest proportion of its budget (Malaysia Education Blue Print 2013-2015). Nonetheless, will high spending solve the under-

achievement problem? High-performing areas such as Shanghai China, Taiwan, Korea, and Japan all are from high UAI cultures which stress values of perseverance and hard work. Study hours at school and private tutoring of Northeast Asian students are also the longest compared to other countries. Relatively, Malaysian study hours at school are much shorter than Korea. This reveals that learning motivation and commitment towards studying hard are crucial factors. Certainly, the Malaysian government needs to determine what has caused the low motivation of Malaysian students in studying mathematics and sciences. Simply investing increasing amounts of money in education does not guarantee high performance.

Korea is a high UAI society, and the inner urges to be busy and hurried are observable in Korean society. A similar phenomenon is seen in Hong Kong, Taiwan, and Mainland China as highly competitive societies. People are always busy and feel that time is precious. The world and the future are seen as being full of uncertainty; therefore things must be settled as soon as possible. But Malaysian values the beauty of slowness, not the "culture of hurriedness". Malaysian values the importance of leisure, joy, love and religion. Busy life with tremendous hard works to pursue high achievement is undesirable. Malaysian has one common saying- "Biar lambat asalkan selamat", meaning "better to be late and safe". This phrase illustrates well the general thought patterns of Malay people and behavior in daily lives. Spending long time on working something out is not an issue as long as it is done. But for Korean, time is money and it is not good to be relaxed. "Relaxed" cost money and waste of many resources. Thus,

being top in education is essential. For many Korean parents, children's educations are planned from their pre-school time. Kindergarten, primary school and choice of secondary school are all associated with the target of university entrance and future career.

In Malaysia, Malay people think that individual earning or so-called *rezeki* is something fixed by God (Kadir 2007); therefore, there is no need to be so tense, stressful or hurried to pursue strong earnings or great career achievements. In Islamic teaching, Muslims should not pursue profit; thus, desire for profit should be limited. If one person is not so successful or not wealthy after working very hard, then the person should accept it as the fate. Malays are taught to keep balance between "budi" and "wealth", and not to be greedy to run after profit (Kadir 2007, p.7). Well-being, love, happiness and harmony are considered more important than achievement or materialistic gain. Belief to God can help to get peace and happiness. That is the different values compared to Korean which emphasize more on self-reliance spirit and economic gain. In Malays' belief, submit oneself to the God help a person to accept uncertainties and accept failures more easily. This helps to maintain harmony and peaceful life but it discourage aggressiveness in achieving success. In Korean society, although people think that love and relationships are very important, personal achievement in study or career must be pursued. This will ensure survival in a competitive society, and it helps to cope with the stress of being a failure. The differences in cultural values have been attributed to the different form of economic activities, which include achievements in education, business, and technology.

Overall, the high Uncertainty Avoidance culture, which emphasized on discipline, order, accuracy, hard work and long term planning, has contributed to the competitiveness of Korean industries. In an uncertain world, Korean believes that accepting challenges and working hard is the only way to maintain achievement. As a resource-poor country, they only way for Korea to achieve wealth is through hard work. What Korea has is its people, and through the power of its "human resources", Korea creates its own wealth. Malay society, which spiritually very much depends on belief in God, tends to accept uncertainties easily.

As a resource-rich country, Malay people do not need to work that hard for a good living. Being stressful, busy or tension is not desired in Malay culture, particularly in the fast change technology industry which create a lot of work stress. Technological development is important; however, there is a lot required to achieve the necessary levels. The required "stress" level in competitive technology industry is something not matched with cultural capacity of Malay. However, Korea is different. Korea is characterized as a "hurry" (*palli-palli*) culture which is used to encountering fast, quick work. The strength of Korean people to be "fast" has allowed Koreans to succeed in a competitive technological world. Korean people are used to live with stressful lives but Malays are used to relaxed lives. The relaxed and "slow" culture of Malays may explain their poor achievement in the fast-changing technology industry. Malays have a culture which has a high tolerance level for uncertainties and mistakes. This culture is not suitable for "accuracy" based technology industry. A little bit

mistakes made in production process would cause serious consequence. This cultural factor may explain why the technological development of Malaysia has been quite slow, and why so less students choose to study in science and technology based subjects.

5.6 Openness of South Korea and Malaysia and its Impacts on Trade and FDI

In the highly competitive globalized age, openness to the world is becoming more important. Under an open system, integration of national markets in the global economy is less restricted by protectionist policy. As suggested by many economists such as Adam Smith, resources will flow to the most efficient allocations under a free and open market system, which will help to increase the welfare of a country. The ideas of Adam Smith promoting the free market system are the basis of economic liberalism, which has flourished in the Western world since 18th century. Free economic system allows the free flows of capital, goods and services, but it come with the problem of fluctuation and instability at the nation level. Thus, policy regulations play a significant role in balancing fast growth and stability, as claimed by Keynesian economics. Although economic liberalism can also be supportive of government regulation to a certain degree, it tends to oppose government intervention in the free market when it inhibits free trade and open competition. Today, economic liberalism is generally considered to be opposed to non-capitalist economics orders, such as socialism and planned economies (Brown 2005).

The ideas of openness or liberalism in economy continue to spread to the world through free trade agreements and the formation of free trade zones. Deregulation, privatization, and withdrawal of the state from many areas of social

provision have been common (Harvey 2005). Even the contemporary China, which has incredible economic growth rate for the past three decade also appears to be headed in this direction. Attributed to openness, the Chinese economy has experienced tremendous change since Deng Xiao Ping advocated the open market system in 1978. The success of the Chinese economic reformation has confirmed the theory of liberalism. Harvey (2005) stated that "the advocates of the liberal ideas occupy positions of considerable influence in education, in the media, in corporate boardrooms and financial institutions, in key state institutions (treasury departments, the central banks), and also in international institutions such as the International Monetary Fund (IMF), the World Bank and the World Trade Organization (WTO) that regulate global finance and trade". Liberalism has become hegemonic as a mode of discourse for modernizing a nation (Harvey 2005).

Moon's OUI model (2004) demonstrated that openness is significant to strengthen a nation's competitiveness. Thus, this paper includes this dimension into the model to investigate how the openness affects the wealth performance of Korea and Malaysia. According to Moon and Choi (2001), Aggressiveness and Attractiveness are the two sub-variables under this dimension, which can be used to characterize two different ways of opening a country. A country demonstrates attractiveness when it creates an environment that encourages the inflow of foreigners, foreign goods, and foreign investments [inbound orientation]. On the other hand, a country is aggressive when it prefers to go into the world through emigration, exports, and foreign investments [outbound orientation]. People with

low openness act according to their emotions and are considered nationalistic and protective (Moon and Choi 2001). Based on the work of Moon and Choi (2001), the Openness's Index score is slightly higher for Malaysia overall, but Korea score higher for aggressiveness (outbound orientation) while Malaysia is higher for attractiveness (inbound orientation). This means Malaysia has become more open for foreigners and foreign values, while Korea is more aggressive at pursuing global investment and business.

Based on this study's quantitative analysis findings, the openness value level affects a country's FDI inflow and trade performance. The more open the level means the more open to trade and more foreign investment. All the richest economies in the world, such as Australia, Canada, Finland, Norway, UK, U.S, Sweden and Switzerland are top scorers in terms of openness as well as FDI inflow, which indicates that the North Western Europe is the most open cultural bloc. This is not surprising as liberalist philosophy has flourished in the region since the late 17th century. The ideas of liberalism, which is strongly associated with openness, continue to exert significant influence on the culture, politics and government of the western world for few hundred years. In other parts of the world, particularly the Asian region, the openness level is relatively much lower. The Northeast Asian countries such as China, Japan and Korea are not only less opened culturally, but also in terms of trade openness and FDI inflow. The significant positive relationship between openness values and FDI net inflows may reflect the influences of openness values on their trade and FDI inflows.

In this study, Malaysia openness index (37 per cent) is higher than Korea (21 per cent). Malaysia is relatively more comfortable getting along with other races due to its long history as a multi-cultural society. Korea, as a homogenous culture, has had a long history of isolation from the world, particularly during the Choson period, when the government purposely isolated the country from the world and international trade was discouraged. Compared to Korea, Malaysia's FDI environment is friendlier than Korea. Malaysia's trade openness index and FDI inflow per capita are also higher than South Korea. As shown in Figure 5.7 and 5.8, the relationship between openness values and trade openness, and openness with FDI openness, is significantly positive. Korea is ranked at the bottom in the Openness orientation index list as well as on trade openness and FDI inflow. Position of Malaysia is slightly higher from Korea as indicated by the Figure 5.7 and Figure 5.8. These results are consistent with other studies, in which Malaysia has been found more open than Korea generally.

Based on Inglehart's World Values Survey (2005-2009), Malaysians show higher openness levels than Koreans; for example, 31.9% of Korean answered that they would not like to have people who speak different languages as neighbors compared to 19.7% of Malaysians. This indicates that in general, Koreans feel more uncomfortable when meeting people who are different from him/herself culturally. This may due to the homogenous nature of Korea, which speaks one language and shares one culture.

Figure 5.7 The relationship between Openness and FDI net inflows per capita-highlight on Korea and Malaysia

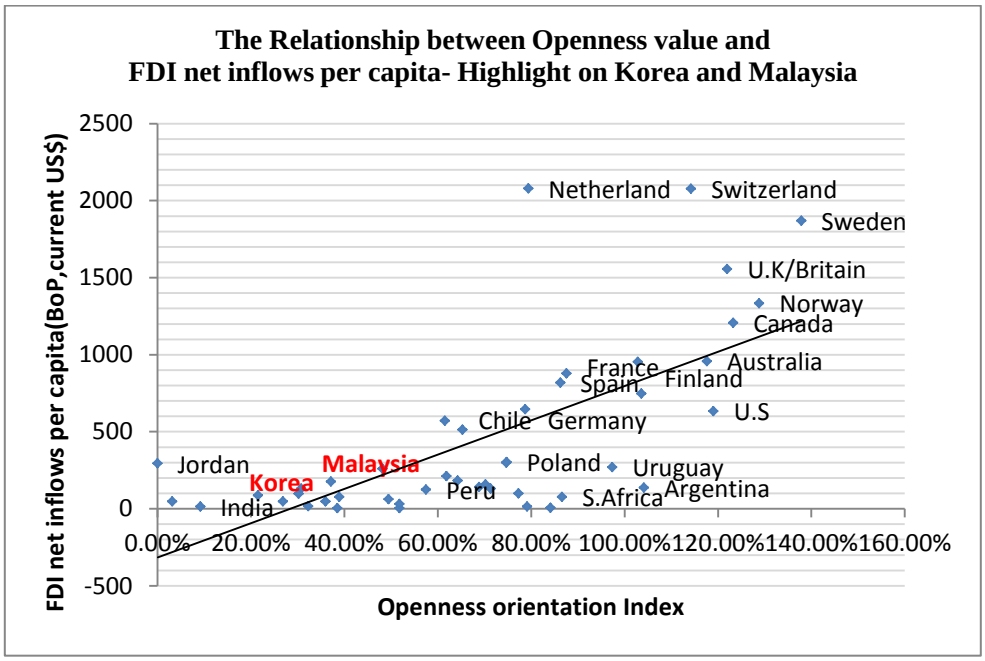
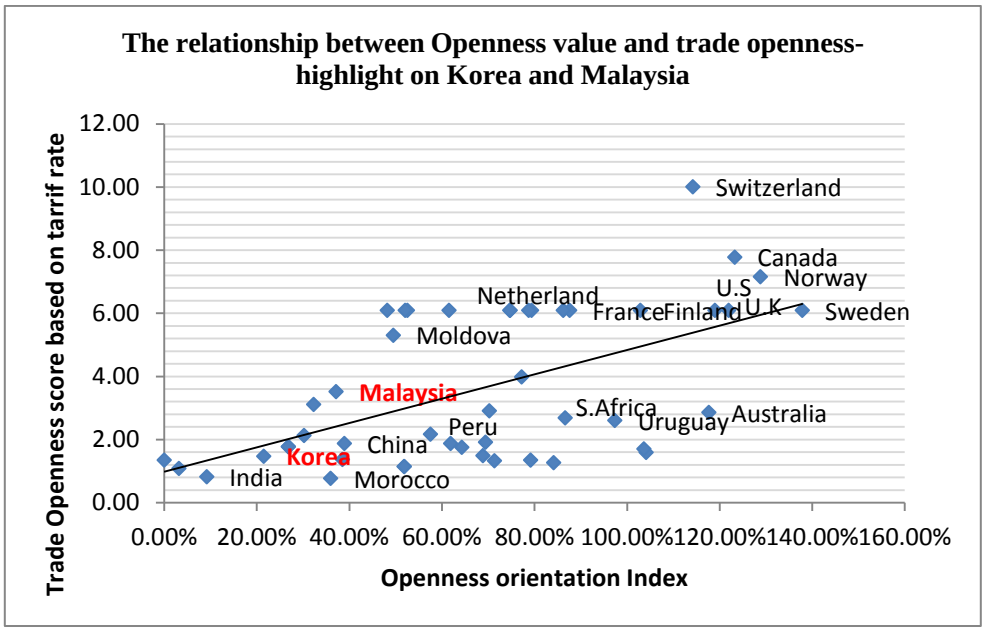


Figure 5.8 The relationship between Openness and trade openness- highlight on Korea and Malaysia



The lower openness of Korea to the world is reflected in FDI policy. As reported in the report of Economic Freedom of the World (2013), restriction of foreign ownership and investment in Korea is much higher than Malaysia, which caused a low rating in this area compared to Malaysia, as shown in Table 5.12 below. Korea's rating in term of foreign ownership restriction in 1995 was only 4.66, but increased to 7.16 in 2000 due to a substantial change of government FDI policy after 1997 crisis. Malaysia has been an FDI driven economy since the late 1980s; therefore, it is not surprising to see a favorable FDI policy in Malaysia.

Table 5.12 Rating of foreign ownership/investment restriction

	1995	2000	2005	2010	2011
Korea	4.66	7.16	5.82	5.60	5.90
Malaysia	7.31	6.61	7.67	7.13	7.12

Source: Economic freedom of the world: 2013 Annual Report

5.6.1 Korea's openness

Korea, as an economy which promoted export growth since the 1960s, had high levels of restriction on foreign investments in the early development stage, particularly during Park Chung Hee's administration. In 1961, there was only one FDI project approved by the government, which increased to 50 projects in 1970 and 55 in 1982 (Stoever 2002, p.53). From 1961 to 1984, the number of yearly FDI approval projects was typically less than one hundred. Protectionist policy was dominant in the nation state development policy. Korean local firms' growth was given top priority, with strict import policies and FDI restrictions. Foreign investment climate was slightly improved from mid 1980s following the country leadership change. Chung Doo Hwan's administration, a young government which elected politicians mostly less than 50 years old, started economic liberalization measures. Some Korean policy makers became more vocal in support of the desirability of introducing more competition into domestic markets, as a way to gain the benefits of greater openness predicted by economic theory.

Protectionist policy was reduced both to import restrictions as well as in FDI policy. In 1985, the "positive list" (allowing FDI in specific sectors) was replaced by "negative list" (allowing FDI in all sector except where specifically prohibited), which led to substantial increased number of industries open to FDI.

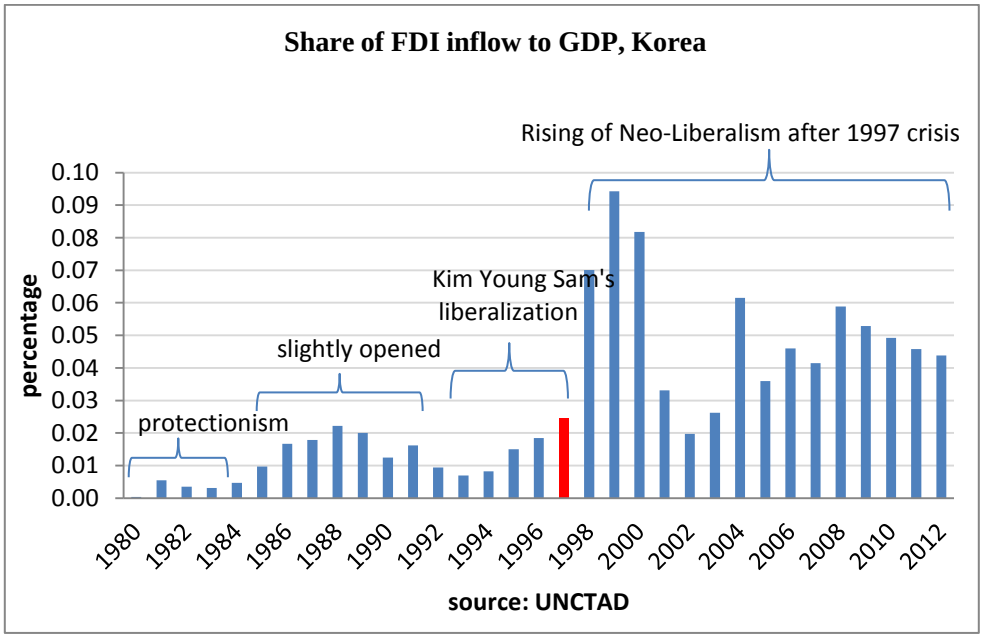
Nonetheless, protectionism remained strong throughout the 1980s. Korean local firms continued to resist FDI competition and put pressure on the government to keep foreign investors out of Korea (Stoever 2002). However, after Kim Young Sam took over the administration in 1993, he continues to adopt significant measure toward economic liberalization. One of the measures is to promote foreign investments in Korea. Kim Young Sam (25 Feb 1994) stated that;

> …Our goal is to make Korea one of the best places in the world for foreigners to do business, and we believe it is very important to make Korea secure and attractive for foreign investors (Kim Young Sam cited Kim 1996, p.18)...

Since then, the Korean government has reduced barriers to foreign participation in the Korean market and removed obstacles to investment and joint ventures. For instance, one-stop centers for foreign investors were opened, and the decision on an application for building a plant is made within forty-five day. Foreign companies that invest in Korea with strategic cutting-edge technology will have their corporate tax waived until years after they have earned their first profits (Kim 1996, p.18). Stock market and bond market also opened to foreign investors. Consequently, FDI in Korea rose substantially, as shown in Figure 5.9.

Share of FDI inflow to GDP rose continuously since 1993 to 1997 under the liberalization program.

Figure 5.9 Share of FDI inflow to GDP, Korea



Under Kim Young Sam's administration, liberalization of Korean economy was speed up under the *segyehwa* (globalization) policy. According to Kim, building a "New Korea" is important to cure the so-called "Korean disease" inherited from authoritarianism of the past. He believed that Korea need new vision in the twenty-first century by clamming that "entails rationalizing all aspects of life" and "reforms in every area" (Lim and Jang 2006). Kim Young Sam stated;

> …Globalization is the shortcut which will lead us to building a first-class country in the 21st century…It is aimed at realizing globalization in all sectors-politics, foreign affairs, economy, society, education and culture and sports… it is necessary to enhance our viewpoints, way of thinking, system and practices to the world class level (Korea Times 7 January 2005 cited Lim and Jang 2006)…

As a consequence, the Korean financial sector and market was greatly liberalized. Korea's traditional development model, which stressed on state's role, was dismantled. Although the aggressive liberalization reforms caused serious financial crisis in 1997, neoliberalism continued to override the nation economic direction under the new structural adjustment. Under the IMF rescue package, neoliberalism gained dominance with greater trade liberalization and removal of all barriers to the cross-border flows of capital, goods and services, with the extended role of the market and the re-oriented role of state (Lim and Jang 2006). Free market and limited state intervention was the basic principle of the reforms. The key reforms required by the IMF included the need to "break the close links between government and business" that defined the Korean development model, "ensure the integration of the national economy with international financial markets," increase the "potential for foreign participation in domestic financial systems," and "remove impediments to growth such as monopolies and trade barriers…" (IMF 1999 cited Crotty and Lee 2004). Under the Kim Dae Jung's

administration, foreign investment was promoted greatly not only to rescue some troubled Korean firms but also to help Korean economy to grow. As a consequent, the number of foreign-invested companies in Korea has increased substantially since 1998. As indicated in the Figure 5.9, FDI inflow to Korea rose exponentially particularly from 1998 to 2000. This was mainly due to purchases of troubled Korean companies by foreign companies after the crisis. The overall contribution of FDI to Korean GDP has been much higher compared to pre-1997 crisis. To promote foreign investments in Korea, the Korean government pursed a series of promotion programs. Passage of the Foreign Investment Promotion Act in 1998 greatly facilitated these efforts. The Act opened up 99.8 percent of Korea's industries to foreign investment and provided significant protection for investors' interest. Under the Act, foreign investors receive incentives including tax breaks, cash grants and affordable land (MOFA, Korea). As a result, the great openness to foreign investors made big achievement to Korea. Attractions of Korea to foreign investors included its R&D facilities, logistics centers and pool of human resources in science and engineering. The Korean government aims to make Korea as the North East Asian financial hub. Following the liberalizations, foreign investors now own about 60 percent of the shares in some of Korea's top companies and nearly 33 percent of stock listed on Korea's main stock exchange (IBP 2013).

Nonetheless, despite the friendly FDI policy and substantial increase of FDI in Korea, in recent years FDI has fallen as shown in the Figure 5.9. Share of FDI inflow to nation GDP dropped consistently from year 2008-2012. Based on the

meeting of Korea's former Prime Minister Kim Hwang-sik with foreign investors, it was found that Korea suffered an image problem for its hostile attitudes toward foreign investors (Korea Times 21 June 2011). International investors were concerned when about 10 financial regulators are being investigated or jailed for taking bribes. The problem of Lone Star from KEB also confused many foreign investors about the sincerity of Korean government in ensuring free capital movement (Korea Times 21 June 2011). Internal pressure from local firms to against foreign competition in local market also has been continued (Stoever 2002). David Eldon, the chairman of the Dubai International Financial Center Authority, who also serves as a special advisor to the Presidential Committee on national competitiveness, commented that Korea should take a friendlier attitude towards foreigners. He mentioned that, "the Korean government can do a number of things to rules and regulations that will assist in creating an attractive investment climate, but the key must be how willing the Korean people are to accept foreigners and their investments. In this regard there seem to be some doubt…other economies were moving much quicker than Korea in creating financial centers, and Shanghai is a good example, and other Chinese cities are also moving forward quickly" (Korea Times 29 May 2008).

The investment climate's report of U.S Bureau of Economic and Business Affairs (2013) mentions that unclear and opaque regulatory decision-making has remained a significant concern for foreign investors in Korea. According to the report, investors are also concerned about significant interest groups that pressure the government to protect the Korean local market from what is perceived as

foreign domination. In addition, the volatility in labor-management relations is also an issue that may hamper FDI. Stoever (2002) comments that the bureaucratic processes is one of the most difficult obstacles to attract FDI in Korea. Stoever (2002) in his study find that one major problem was to get lower-level bureaucrats to implement reforms promulgated by top-level ministers, inefficiencies of lower-level bureaucrats in handling FDI application created many delays. Certainly the Korean government need to do a lot more to create business friendly environment to foreign investors.

Korea's trade openness also has the similar development path as FDI openness. Historically, Korea closed its door to international trade during Choson dynasty. The national history of international exposure and trade is rather short (Sakong 1993, p.20). Although Korea began industrialization after the Korean War, the Korean government imposed high restrictions on import market from 1960s-1970s. During Park Chung Hee's administration, the trade regime was characterized as outward-looking on the export side and restrictive on the import side. To facilitate the growth of local infant industries particular the Korean manufacturers, Korean government had imposed the high tariff barriers as well as non-tariff barriers to import products. Import liberalization plan was initiated in late 1970s when the balance of payment improved substantially (Sakong 1993, p. 87). Following the change of government in 1981, restrictions on import items were greatly reduced (see Table 5.13). The decision to liberalize was based on the belief that to increase national competitiveness, import liberalization was inevitable.

Table 5.13 Korea's import liberalization, 1977-1991

Year	All items	Items with automatic approval
1977	1312	691
1978	1097	712
1979	1010	683
1980	1020	693
1981	7645	5576
1982	7560	5791
1983	7560	6078
1984	7915	6712
1985	7915	6945
1986	7915	7245
1987	7911	7408
1988	10241	9694
1989	10241	9776
1990	10274	9898
1991	10274	9991

Source: Il Sakong, 1993, p.88

Since then, Korea's openness towards international trade has continued to increase steadily. As shown in the Figure 5.10, Korea's trade openness was pretty low during 1980s, but improved substantially from year 1990. For instance, by 1983, of some 10,000 product classes, 19.6 percent contained import restrictions (Dornbusch 1992). By 1989, the fraction had dropped to only 5.3 percent and most of these were primary commodities. Only 46 industrial products continue to have import licensing or prohibition (Dornbusch 1992). With the new leadership and dominance of liberalists in the elite groups, Korean leaders believed that Korea has no choice except open up to foreign competition to enhance the local industrialist' competition. Dornbusch (1992) mentions that with the help of a

selectively liberal import strategy, Korea has been able to develop a highly competitive manufacturing sector that offers its own brand-name manufactures of increasing sophistication. Korea's trade liberalization has sped up since 1997. Through signing numbers of free trade agreements, the overall tariff barriers have declined greatly. According to Korea's MOFA, as of March 2012, Korea had effectuated a total of eight FTAs with 45 countries, including the U.S., ASEAN, India, the EU, Peru, Chile, Singapore, and EFTA. Korea also aims to contribute to regional integration within East Asia through FTAs with China and Japan. Overall, Korea's trade openness has greatly improved.

Figure 5.10 International trade freedoms rating of Korea

Historically, Korea was secluded from the outside world and gained the name of "Hermit Kingdom of the Orient". Korea closed herself off not only culturally but also economically. Korea as a collectivist society, which often

stress on identity of "we" versus "other" have influenced the people's thoughts and worldviews, particularly their openness level to other groups, or other people groups. In the past, ethnocentrism and conservatism of Korean business firms were big obstacles for Korean firms to move forward in globalized business world, and this cultural obstacle still exists more or less. At the nation level, the tendency to protect local industries as well as cultural distance have created unfriendly business environment to foreign investors. Although the cultural openness level remain low compared to other countries, however it has improved steadily. While Korea has been doing well in liberalized its trade, openness towards FDI must be further enhanced for greater growth and job creations.

5.6.2 Malaysia's openness, protectionism and Islamization

Several studies (Moon and Choi 2001; Inglehart's World Values Survey) have shown that Malaysia is more open than Korea. As a multicultural society, Malaysians are used to deal with different races in daily lives, and learned to live harmony in the multi-ethnic society. Malaysia as been exposed to Western systems for 500 years, under Portugal, Holland and British. Despite the higher openness level and longer history of exposure to the world, the strong Islamic culture and nationalism of Malay remain strong today. Compared to Koreans, Malaysians are considered more traditional culturally and conservative in accepting the globalization. Korea, is a secular state and the whole nation has headed towards modernization, which promotes values of free competitions and

openness. However in Malaysia, the modernization path seems to encounter a lot of delays, and some parts even have a reverse trend. Racial-based systems remain a dominant ideology in the nation development plan. Islamic influences have been getting more influential through government institutions, school education and law. Until today, Malay society remains traditional, with strong Islamic religious beliefs and restricted social codes. Religious obligations and national pride are always the first among the Muslim/Malay community. As shown in the World Value Survey (2005-2009), majority of Malaysian think that religious belief is important in their child quality.

For conservative groups, modernization and liberalization is seen as threats to Malay's culture and economic status. Protecting local culture, particularly Islam, is considered essential. Even the current Prime Minister, Najib Abdullah, who has been described as liberalist in the past, also has changed his standpoint towards the value of liberalization. In a speech in the 57th national-level Quran Recital Assembly on 13 May, 2014, Najib stated;

> …Islam and its followers are being tested by new threats under the guise of humanism, secularism, liberalism and human right…we will not tolerate any demands or right to apostasy by Muslims, or deny Muslim their right to be governed by Shariah Courts and neither will we allow Muslims to engage in LGBT (lesbian, gay, bisexual and transgender) activities (Najib cited the Malaysian Insider 14 May 2014)…

Even though Malaysia is a secular state under the constitution, the Islamization of the country has been very rapid in recent years. Anti-west sentiments remain strong among the Muslim society. It is evidenced with the local media reports with high frequency of anti-west commendatory. Local Malay newspapers (example Utusan) frequently publish anti-U.S and anti-globalization articles. There are number of reasons contributing to the anti-West sentiment among Malays, such as for historical reason. Malaysia was occupied by the British for two hundred years. The second reason is America's involvement in the Israel-Palestine issue and its intervention in Arab Islamic region. Generally Muslims are resented with the U.S intervention in the Muslim countries.

When required to choose between religion, nation pride and economy, Islam is always the number one priority in Muslim society. For instance, when U.S. supported Israel in the issue of GAZA in 2009, it drew boycotts from 2000 Muslim restaurants in Malaysia and Coca-Cola products were removed from their menus. Malaysian Islam NGOs called boycott campaigns against American products, such as boycott Macdonald, Coca-Cola (BBC News 4 December 2002). The anti-American products campaign was supported by Malaysia leaders that time. For instance, Mahathir once said that, "If you stop accepting US currency, the US can't trade and cannot make any money, it will become very poor and it will have to stop the production of more and more weapons in order to kill people. People must act, they won't die if they don't drink Coca-Cola" (BBC News 9 January 2009). In addition to boycott campaigns from civilian groups, the

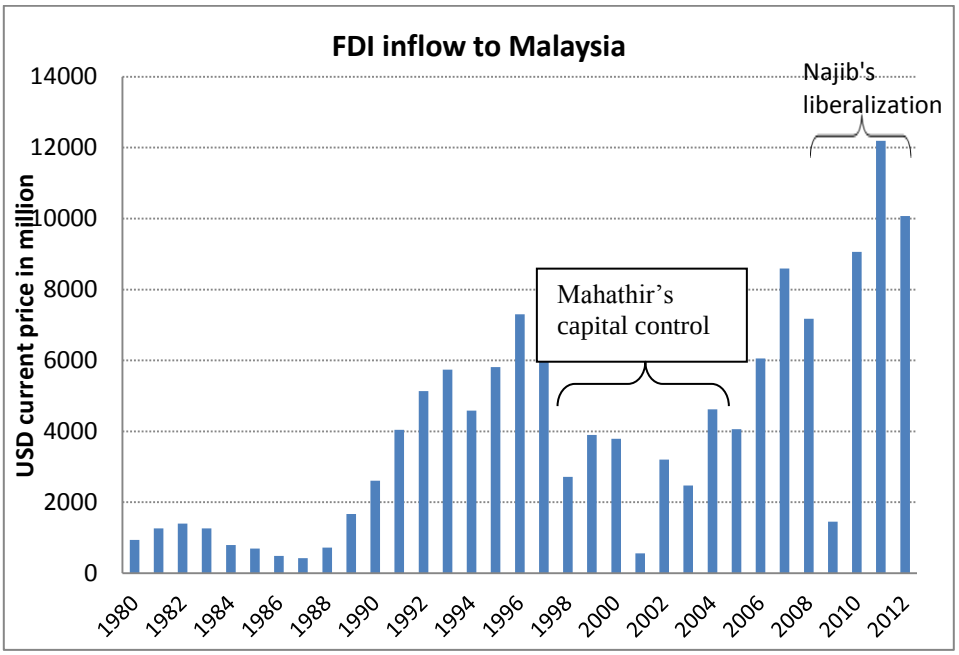
Malaysia government also made the same move by suspending US-FTA talk in 2009. Malaysia's International Trade and Industry Minister Muhyiddin Yassin announced that the US-FTA talk was suspended temporarily as a protest against the U.S support of an Israeli invasion of Gaza in 2009.

Clearly, nationalism and Islamism have affected on the nation liberalization process. Particularly, the values of nation leaders have had significant impacts on nation policy making. To voice against the west "imperialism", Mahathir was one of the outspoken leaders who led the world's Muslim community. Since Mahathir came to the power in early 1980s, he was known for his anti-Westernism, the context through which he often expressed his nationalistic sentiments. He used to condemn the "Pro-West" policy by the Malaysia first Prime Minister-Tunku Abdul Rahman. Thus, after Mahathir took over the Prime Minister office in 1981, Mahathir introduced "Buy British Last" policy which allowed him to make a visible and firm stand against the kinds of Western manipulations ha had always resented (Furuoka 2007, p.4). The campaign could be interpreted as retaliation by the Malaysian government against British policy. After that, Mahathir began his Look East Policy. The Look East Policy was announced during the British foreign minister's visit to Kuala Lumpur to mend Britain's deteriorating relations with Malaysia. Instead of learning and benefiting from the West, Mahathir wished to learn from the East. The resentment of the West by Mahathir was one of the important factors contributing to the founding of Look East Policy.

Mahathir's anti-Westernism and anti-Jews attitudes can be noticed when he ran the country from 1980s-early 2000s. For instance, Mahathir once blamed U.S speculators for causing the 1997 Asian financial crisis. He said: "The Jews robbed the Palestinians of everything, but in Malaysia they could not do so, hence they do this, depress the ringgit (International Herald Tribune 11 October 1997)". Mahathir think that if international financial regulators fail to regulate the greedy speculation activities, then the country should control them internally. Thus, to rescue the Malaysian economy from collapse, Mahathir's administration imposed heavy capital controls, pegged the ringgit to the USD, and restricted foreign capital inflows into portfolio investments. To control the ringgit exchange market, the offshore ringgit market was eliminated, ringgits held abroad were invalid, and ringgit lending by Malaysians to foreigners was prohibited. What was more influential was the strict control of international capital flow in share market. Foreigners who sold shares on the Kuala Lumpur Stock Exchange could not take the money out for a year, but this was replaced by a graduated tax on outflows and exit taxes on capital gains. Consequently, foreign portfolio investments sharply declined after the capital control began. Total investments and FDI inflow performance were also not encouraging since the 1997 crisis, as shown in figures 5.11, 5.12, and 5.13. FDI inflow into Malaysia as a share of World Total FDI has shown a discouraging trend, particular during 1998-2003. Nonetheless, when Malaysia partially liberalized the exchange control and capital market in 2005, FDI inflow into Malaysia increased. FDI inflow to Malaysia improved under the Najib's liberalization policy beginning in 2009. Nonetheless,

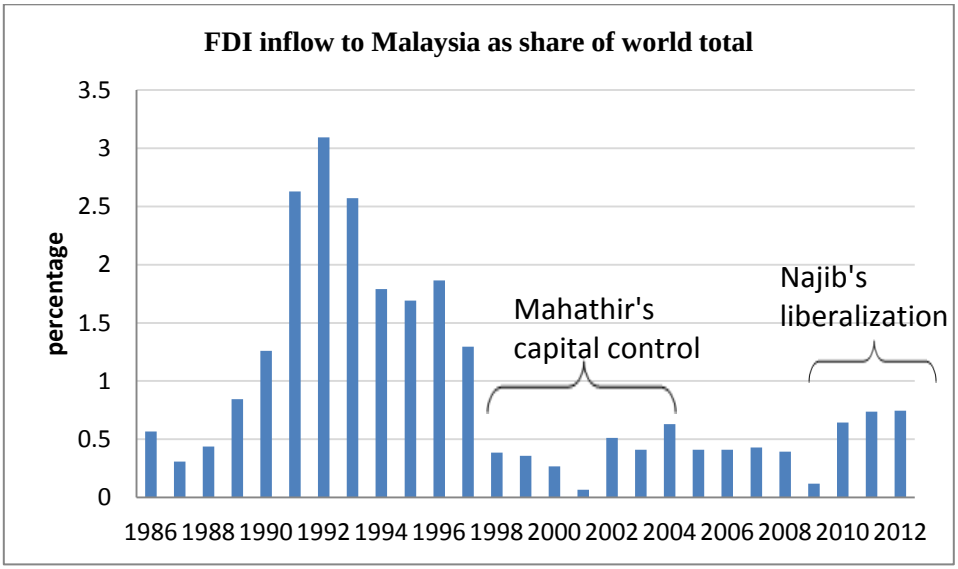
the total investments as percentage of GDP of Malaysia has poorly performed compared to South Korea. Total investment (% of GDP) in Malaysia fell from 43 percent in 1997 to 22 percent in 1999, and has not been able to rebound substantially until today.

Figure 5.11 FDI inflow into Malaysia



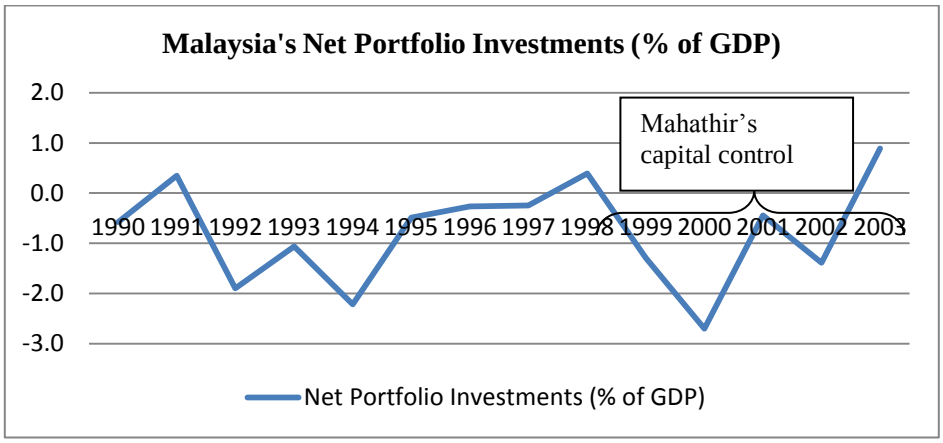
Source: UNCTAD

Figure 5.12 FDI Inflow into Malaysia as share of world total



Source: UNCTAD

Figure 5.13 Malaysia's net portfolio investments (% of GDP)



Source: Asia Regional Integration Centre 2010

Malaysian nationalism and protectionism have influenced the trade liberalization process as well; one example is US-Malaysia FTA talk. The free trade agreement negotiation between US-Malaysia started in 2006 and had 8 round meeting. However, the process of reaching the agreement has been very slow. When the first round of talk was held in 2006, it drew a few hundred people protesting on the street. The anti US-Malaysia FTA's coalition includes Consumer Association Penang, the Malaysian Trade Union Congress and the Islamic Youth Movement Malaysia (ABIM). As usual, Malaysia's former Prime Minister Mahathir was also against of US-Malaysia FTA talk. Mahathir stated that an FTA with the US could harm the economy by undermining the New Economic Policy, which was promulgated in the 1970s to give ethnic Malays and other indigenous groups special privileges to narrow the wealth gap with Chinese Malaysian (Malaysia kini 2006).

> …I understand that the Americans are particularly interested in government procurement. They want to be able to access government procurement but we have used government procurement in order to correct the (economic) imbalances under the New Economic Policy (NEP) to give Bumiputeras a chance (Mahathir 2006 cited Malaysia kini 22 March 2006)…

Under the free trade agreement, U.S government would get greater access to Malaysia's financial sector, which is controlled by ethnic Malays under government support. Domestic protected industries, such as the Proton national automotive project, might also be affected if a US-Malaysia FTA is launched. Thus, after having several rounds of negotiation, the FTA talk faced a deadlock due to disagreement over Malaysia's ethnic-based policy. Rafidah Aziz, Malaysia's Trade Minister in 2007, stated;

> ...Malaysia's discrimination policies for its majority ethnic Malays would be excluded from negotiations. That is sensitive or "no-go" issues. The attitude of our government is that the native Malay policies are not compromised and are non-negotiable (Rafidah Aziz cited Bernama 15 Feb, 2007)…

As a result, the FTA talks between US-Malaysia have yet to be achieved. Malaysia's government policy, which only offers government procurement to Malay firms, is against U.S principles, which wants the Malaysia government to

open up free competition for U.S companies to bid for government contracts. In addition to the disagreement over the FTA content, the U.S involvement in Israel-Palestine issues also affected the progress. In 2009, Malaysia's International Trade and Industry Minister Muhyiddin Yassin announced that the US-FTA talks have been suspended as a temporary protest against U.S support of an Israeli invasion of Gaza.

However, since Najib assumed the premiership in April 2009, Malaysia's policy towards the United States has become more cooperative. This is evidenced by a series of decisions and new policy actions. Najib intends to improve Malaysia-US relations as major component of his foreign policy agenda. He also hopes to increase the bilateral trade and investment flows between Malaysia and the United States, and decided to resume talks in joining the Trans-Pacific Partnership (TPP) negotiations (Kuik 2012). During Najib's visit to United States in April 2013, Najib stated that Malaysia agreed in principal to be a member of the Obama administration driven Trans-Pacific Partnership to forge economic integration in the Asia Pacific region (Bernama 13 April 2013). Najib also stated that Malaysia wanted more investors from the United States (Free Malaysia Today 30 September 2013). One of biggest investments from the U.S companies recently was by Coca Cola, with an investment of RM1 billion to build a bottling plant in Nilai. Taking a different approach from previous leadership, Najib has shown a liberal attitude towards the West and is more pragmatic in dealing with economic issues. Under the liberalization policy of the Najib administration, FDI inflow to Malaysia increased substantially since 2008 as shown in the Figure 5.11.

Najib's administration believes that through liberalization of trade and foreign investments, Malaysia will able to leap and move out from middle income trap. However, the US-Malaysia FTA continues to be protested by local NGOs. One of the vocal critics is the Malay Economic Action Council (MTEM), which has expressed fear over the fate of Bumiputra SMEs, among others, as they may have to compete with bigger companies from the U.S if the FTA is ratified (The Star 13 September 2013). In facing this problem, the current Trade Minister-Mustapa has met the MTEM leaders separately at least six times, in order to understand their concern. The nationalism and protectionism has been the barrier for liberalizing more trade and investments.

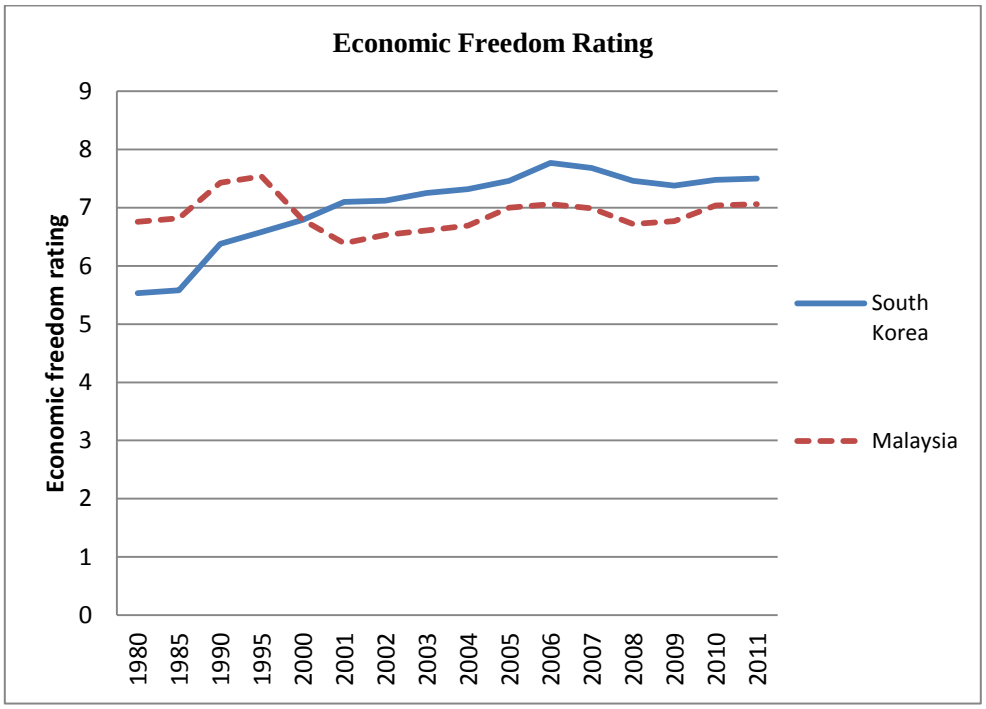
Figure 5.14 shows the economic freedom rating of South Korea and Malaysia. The economic freedom rating of Korea has gradually improved in recent years. This demonstrates that the openness level of Korea to outsiders is increased. The Korean government has stepped up their efforts to meet international standards and rules for attracting business. The increasing number of foreigners in South Korea is also another indicator of Korean globalization. Malaysia economic freedom and openness continues to be restrained by its ethnic-based policy. The current Malaysia's Prime Minister-Najib Razak is somewhat more liberal than former leaders; however, the Bumiputra policy remains as core agenda of development policy. Najib (2013) stated;

> …Malaysia's dream of becoming a high-income nation would be meaningless if the country's largest demographic group were left economically backward. As the majority

> race, the economic empowerment agenda of the Malays and Bumiputra should be the core national agenda...What is the purpose if our country is advanced but its majority race is sidelined and unprotected? (The Malay Mail Online 5 December 2013)

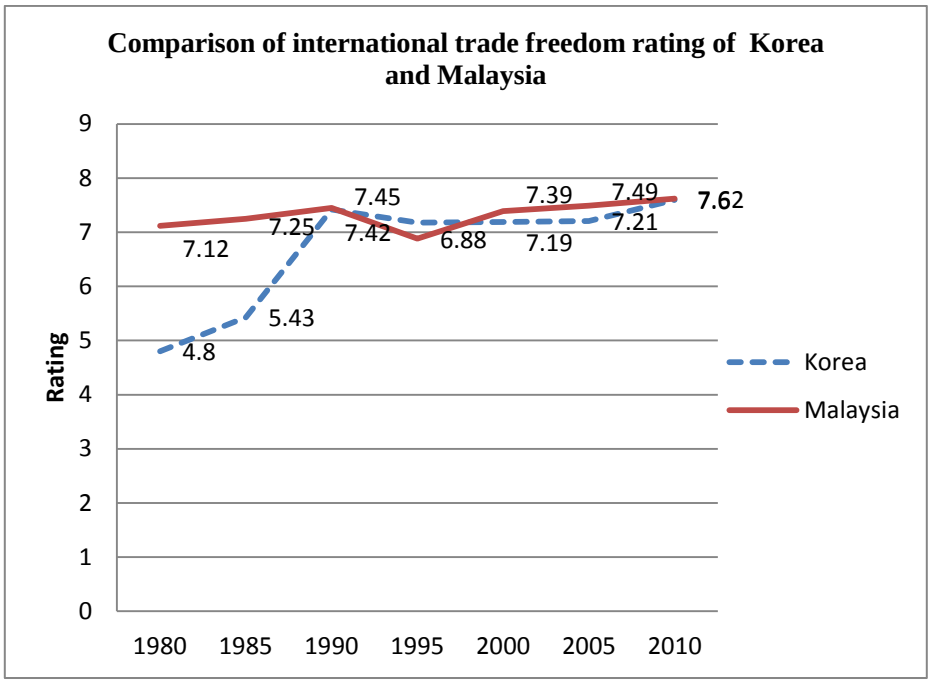
Thus, it is expected that the protection policy to ethnic majority in Malaysia to be continued. The nationalism and internal political pressure would be remained as barrier in promoting free economic system in Malaysia. Forming of FTA with other countries has helped to open up the trade market and FDI; however, the Bumiputra policy is expected to remain a "non-negotiable" issue in the FTA system.

Figure 5.14 Economic freedom rating of Korea and Malaysia



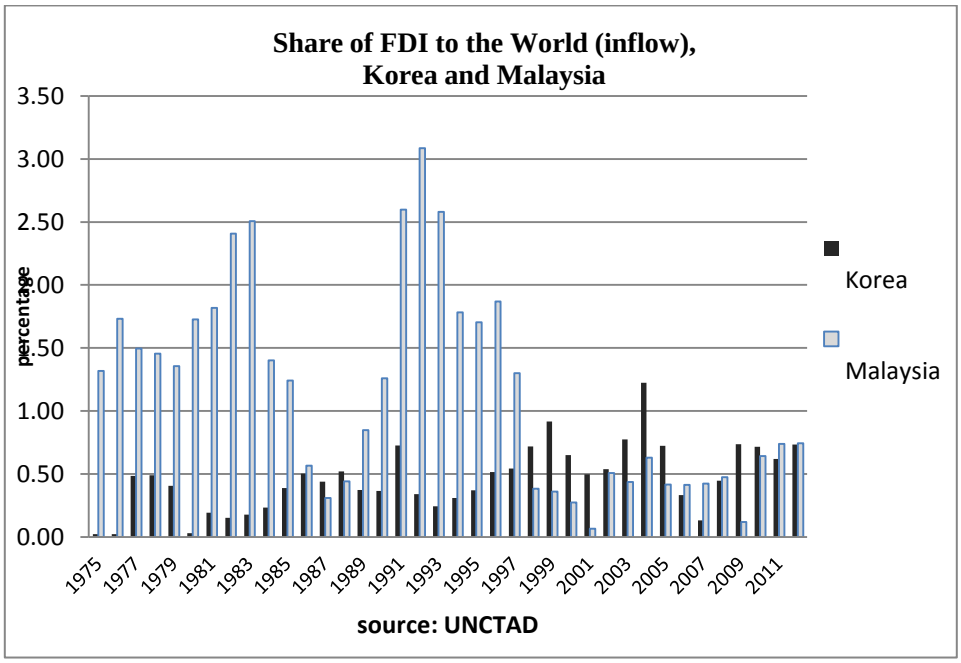
Source: Economic Freedom of the World 2013 Annual Report

Figure 5.15 Comparison of international trade freedom rating of Korea and Malaysia



Source: Economic Freedom of the World 2013 Annual Report

Figure 5.16 Share of FDI to the World (inflow), Korea and Malaysia



As shown in the Figure 5.15, Korea's trade openness also has greatly improved since 1990 and reached a similar level with Malaysia in 2010. In term of FDI openness, Malaysia's achievements have been quite poor compared to Korea. In the past, Malaysia attracted a great deal of FDI from world MNCs; however, Malaysia's attractiveness has been deteriorating, particularly since 1997. It is not a good sign as Malaysia is a FDI-driven economy. Over the past few years, Korea has received a similar share of FDI. It is evidenced in the Figure 5.16 which indicates the share of FDI in Korea and Malaysia to the world was similar from year 2010-2012. Korea, as a modernized state, is continuing to promote the values of openness and free competition not only culturally but also

as policy core values. Thus, it is expected that Korea's level of openness will further improve and create higher growth. While Malaysia is somewhat liberalized currently, the advent of conservatism in Malaysian politic is worrisome. The changing of values towards liberalizations already has exerted impacts on the recent policy direction and economic achievement. In Malaysia, as a multi-ethnic country with a dominant race-based ideology and Islam-first approach, the liberalization process may further slow or even reverse. Certainly, potential future economic growth will be undermined if conservatism continues to gain traction in Malaysia politics and society.

CHAPTER 6: CONCLUSION

Cultural values are highly related to national competitiveness as revealed in this study. Based on the analysis across countries, Individualism, Uncertainty Avoidance and Openness are highly correlated with national competitiveness. Among the cultural dimensions, Individualism appears to be the most important cultural factor, with the highest correlation, for determining innovation, trade openness, FDI inflow, and GDP per capita. Uncertainty Avoidance has a strong positive correlation with R&D investment and educational performance. Openness is also very important for international trade and FDI attractiveness.

This study found that most of the advanced economies in the world rank highly on the Individualism Index, Uncertainty Avoidance Index, and Openness Index. The dynamic North East Asian economies (e.g., China, Japan, and Korea) rank high on Uncertainty Avoidance, but low in both Individualism and Openness. Their Uncertainty Avoidance cultures have helped these so-called "Asian dragons" to grow, but their low degree of Individualism and Openness has limited their competitive achievement levels. Western countries, which are more individualist and culturally open, perform better in FDI inflow, trade openness, as well as in innovation. The Confucian cultural zone countries; such as China, Japan and Korea which are collectivist societies, are less open, and perform poorer in trade openness and FDI inflows. This suggests that if Confucian cultural zone countries want to be more prosperous, they need to be

more open and adopt some of the more positive values associated with individualism, particularly merit-based and competition-based values.

One important finding of this study was the contradictory position of Japan and South Korea on the Individualism-Innovation relationship test, indicating that Japan and South Korea are high in both Collectivism and innovation. This indicates that other cultural factor may have contributed to Japan and Korea's innovativeness, or that collectivism may have positive outcomes under the capitalist systems of Japan and Korea. To explain this, this paper through the multiple-regression analysis showed that Uncertainty Avoidance was positively related with the innovation index.

Uncertainty Avoidance contributed to R&D investment which leads innovation. This means the culture of Uncertainty Avoidance has helped collectivist cultures to grow. Upon further investigation, the Korea's case study revealed that Korean collectivist values and uncertainty avoidant attitudes played a significant role in the process of industrialization, particularly during the early development stages. Collectivist values emphasizing harmony, team spirit, seniority, loyalty, and patriotism, helped Korean firms to grow in 1960s – 1980s.

The powerful collectivist management culture and leadership styles helped Korea to grow rapidly from one of the least developed countries to a powerful economy within a short period of time. Nonetheless, when the Korean economy entered the innovation driven stage, Korea began to face innovation growth problems. Collectivism had helped to form a solid foundation, however, it limited innovation. Traditional values, such as group harmony, hierarchy, seniority, and

life time employment, became the obstacles to innovation and prevented many Korean firms from advancing further. The rigidity of the collectivist culture, which restricts the free flow of communication, started to undermine the growth of Korean innovation in mid 1990s. Consequently, Korean firms were forced to reform themselves, particularly in the wake of the 1997 financial crisis.

To enhance their competitiveness and to compete with their global rivals in the technology industries, Korean innovative firms and organizations begun to replace their traditional management cultures with global standard management systems. One such reform included the gradual replacement of the seniority-based reward system with a performance-based system. Although seniority-based reward systems are still commonly found in Korean organizations, performance-based systems are becoming increasingly prevalent. This suggests that Korea is undergoing cultural change. While Korea has had a strong collectivist culture in the past, it is gradually adopting more individualist values. As such, Koreans are increasingly recognizing the value of competition and creativity. Dominance of collectivist values in the management such as seniority, hierarchy and harmony have been weakened. Nonetheless, the issue of ownership and management remain a critical issue for Korean *chaebols* management.

Uncertainty Avoidance is another significant aspect of culture influencing nation competitiveness and economic development. This study found that countries with fewer resources tend to be high in Uncertainty Avoidance, but have successful innovation driven industries. Germany, Switzerland, Norway, Japan, and Korea all rank high on Uncertainty Avoidance and are economically

prosperous. This indicates that Uncertainty Avoidance plays a significant role in enhancing a country's competitiveness.

The high Uncertainty Avoidance of Korea has contributed to the attributes of hard work, perseverance, discipline, frugality, orderliness, long-term orientation, and the sense of urgency. As a culture with high levels of anxiety, Koreans tend to be more future-oriented and emphasize planning in their lives. Unlike Malaysians, who tend to accept each day as it comes, Koreans always plan and anticipate for their future needs. Due to their general sense of anxiety for the future, Koreans tend to save more money and invest more. Furthermore, the idea that "time is money" is more pervasive throughout high Uncertainty Avoidance cultures. The Korean culture is also characterized as a "palli-palli" (translating "quick and quick") culture. This "fast" culture enables Koreans to work fast in a highly competitive technology world.

For a "relaxed" culture like Malaysia, targeting a fast changing technology industry seems to be a poor policy choice in the Malaysian context. Malaysia seems to lack the "cultural capacity" to pursue the same economic development models as Korea. Malay society emphasizes religion, particularly Islam, as an integral part of the culture. Islamic ethical codes seem to conflict with the capitalist spirit, discouraging the thirst for profits. Under the Malay's Islamic value system, being profit-oriented or money-focused is less emphasized. Malays are taught to strike a balance between wealth and *budi* (virtues) for a harmonious life. Modesty, family, and love are considered desirable values in Malay society, and the pursuit of economic gains is regarded as less important.

In addition, as a resource-rich country, Malaysian people do not need to work that hard to survive. Malaysian culture shuns being busy, stressed, or feeling tense over work. Therefore, the technology industry, which can create a lot stressful work, may be an inappropriate match for the Malay culture. Consequently, given the lack of capitalist spirit, the failure of most industrialization models comes as no real surprise. In fact, the Malaysian leadership realized the need to learn the industrialist spirit from Korea and Japan under the Look East Policy. However, creating a team-spirited industrial culture will not be possible without more extensive cultural changes taking place.

Malaysian culture is slightly more open than Korean culture, but lacks many of the positive collectivist values of Korea and instead has a race-based form of collectivism. Despite being a multi-cultural country, Malaysia's collectivism is based on ethnic group. The main objectives of the race-based development policies are to promote income equality, stability and the harmony of the country. However, these policies have inadvertently limited overall competitive growth. Various studies have shown that the ethnic-based economic policy has caused inefficiencies in resource allocation, and contribute to the brain drain problem, and poor human capital. Under Mahathir's leadership, the Heavy Industry Plan was implemented by the government to modernize the majority ethnic Malays. However, there was a problem that the target of the policy was the prosperity of an ethnic group and not the achievement of the industry. Despite a lack experience and qualifications, Bumiputra/Malay executives were recruited by the government to manage heavy industry firms. Due to the inexperience of the

executives and their lack of preparation for assuming such enormous responsibility, heavy financial losses were incurred. And while the skill and knowledge of the Malays have certainly improved, they have come at a heavy cost. Extended protectionism and other supports have created a "protection mentality" which discouraged Bumiputra firms from learning how to compete in a free open market without government protection. The most prominent example of this "protection mentality" was the government linked local automotive company, PROTON Automobiles, which still depends on government protection policies to survive despite 30 years of operations.

Protectionism and conservatism are cultural barriers to national competitiveness that must be removed if countries are to move forward in their economic development. Malaysia, as an export and FDI oriented economy, should aim for greater openness to attract more FDI and focus on international export markets. Korea, as an innovation-driven economy, must strive for more individualism as this is the key to achieving greater levels of innovation. Furthermore, Korea should aim to be more open so as to attract more foreign investment. Korean protectionism gave local firms a helping hand in the early phases of industrialization, but in today's global economy such protectionism paradoxically harms local businesses.

In this highly competitive global economy, foreign investors look for friendly business environments and, when they don't find them, they can always look for better alternatives. Open economies will always attract more and better business opportunities. As shown in this study, all of the richest economies with

the highest standards of living (e.g. Switzerland, Norway, Finland, and the Netherlands) maintain open economies which attract international competition and investment.

It is expected that the income gap between Korea and Malaysia will continue to widen if current trends do not change. Korea is becoming more open, more performance-oriented, and high in uncertainty avoidance, while Malaysia remains a collectivist society that is low in uncertainty avoidance and high in protectionism. Natural resources, generous government subsidies, protectionism of local industries have led to dependent mentality among Malaysian companies.

While reform is absolutely essential, for a culture that has a large power distance, such reforms will not come easily and will depend entirely on the political will of the nation's leadership to make a stand for the sake of the country's future. Being a prosperous economy in a capitalist global economic system demands an equally capitalist spirit for achieving desired results. Therefore, cultural change should be pursued by enhancing systems that embrace the values of competition, merit, and openness. These values will play a significant role in creating the prosperity of economies. The positive values of one's own culture should be maintained, but accepting positive values from other cultures can help to enhance one's economy and competitiveness.

6.1 Limitations and Further Study

There is a room for improvement of this study, particularly in terms of cultural variable data source. Correlation tests between cultural values and competitiveness require a large data based on a number of countries. The World Values Survey (WVS) data was only available option among the raw statistical cultural data in the online database for public use. Although more data options are available, most are either outdated or aimed at an organization level (e.g. the IBM survey by Hofstede 2001). Thus, the World Values Survey was the only real choice of datasets for conducting country-level cultural analysis.

The WVS has conducted six surveys between 1981 and 2014 which is one of the most widely used cross-national time series surveys, covering almost 100 societies. Topics covered by the survey questions include democratic values, tolerance of foreigners and other races, gender equality, importance of religion, attitudes towards work, family, national identity, and subjective well-being. In total, the WVS provides more than 200 survey value questions. However, for the purpose of this study, the choice of survey questions was limited because this study is focused on the dimensions of Individualism, Uncertainty Avoidance, and Openness; whereas the scope of WVS is considerably broader.

Due to the limited number of WVS survey questions related to this topic, the proxy variables for measuring Individualism, Uncertainty Avoidance, and Openness were necessarily limited to few variables, and may not necessarily be the most appropriate measures for each of the dimensions. Furthermore, the

survey data itself has disadvantages in that it can be affected by unrepresentative samples, poor survey questions, or false answers given by respondents. Therefore, case studies of specific countries are necessary to offset the limitations of quantitative study.

Another weakness of this study is the different time frame of quantitative versus qualitative components. The cross-national statistical analysis focused on the years 2005 – 2009; however, the case studies of Korea and Malaysia covered a significantly larger period, 1970s – 2000s. The 2005 – 2009 dataset was used because data for Malaysia was not available until 2005. In addition, the WVS survey questions are slightly different at each data collection point; therefore it is not always possible to use the same survey items for the measurement of each cultural dimension across different periods. Furthermore, for the specific case studies of South Korea and Malaysia, the analysis was primarily focused on the 1990s – 2000s period; earlier periods were used only to provide background context. Correlations tests, as used in the quantitative analysis, also have limitations. Correlation testing only suggests to the probability of a relationship between two variables, but it cannot prove that one variable causes a change in another variable. In other words, correlation does not show causation. Other variables might play a role. Therefore, the case studies in the second part of this paper are important in providing support for the outcomes of the correlation testing. Nevertheless, a more in-depth analysis of the quantitative relationship between culture and competitiveness is needed.

Due to the limitation of existing statistical cultural datasets, developing a new survey at smaller level of unit analysis would help in future studies. Different approaches to the study culture may provide a better picture, for instance, through naturalistic observation by case studies, or content analysis with a specific focus on Korea and Malaysia.

Besides cross-national levels of analysis, research at an organizational level might provide a better explanation of the relationship between cultural values and competitiveness. For instance, case studies of Hyundai Motors and Proton Automobiles would provide a good comparison of how the difference in organizational culture has affected the management performance of Hyundai and Proton. By studying at a company level, data would be easier to obtain compared to nation or cross-national level data.

For further study, Moon and Choi's (2001) OUI model and Moon's (2013) ABCD model could be applied where more extensive value data is available, either quantitatively or qualitatively. It is important to have more detailed studies of each relationship tested in this study with further quantitative analysis and additional case studies. Both the OUI and ABCD models, introduced by Moon (2004, 2013), are useful in exploring the role of cultural factors in Korea's development. The ABCD model identifies four key factors in Korea's success; namely agility, benchmarking, convergence, and dedication. Based on the ABCD model, Korean economy can be described as an economy of speed, learning, diversity, and of hard work. Economy of speed and economy of hard work are highly related to cultural factors. Therefore, applying the ABCD model might

help to further understand the role of cultural factors in Korea's success. It might similarly be applied to the case of Malaysia for comparison purposes.

To conclude, there is more room for further investigation and for improvements of this study. This dissertation only provides an overview of the relationship between culture and the economy, with a specific focus on Korea and Malaysia. More detailed studies are needed at different levels of unit analysis and by using different research methodology to further understand the relationship between culture and the economy. Such studies should also need reliable data to ensure the validity of the arguments.

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Abstract in Korean

국문 초록

본 논문은 문화적 가치와 국가경쟁력간의 관계를 연구하고자 작성되었다. 이 글은 크게 두 부분으로 나뉘는데 첫 번째 파트에서는 통계적 분석을, 두 번째 파트에서는 한국과 말레이시아의 사례를 다루고 있다. 정량적 분석으로 많은 국가들을 상대로 조사한 자료를 바탕으로 문화와 경쟁력 간의 관계를 결정하기 위한 상호관계분석을 실시하였다. 심층적인 정성적 분석을 위해서는 한국과 말레이시아의 사례를 연구하였다. 정리하자면 본 논문은 첫째, 경제 및 문화 관련 문헌을 심층적으로 분석하였고 둘째, 다양한 문화이론모델에 대해 다루었으며 셋째, 최신 실증적 연구결과, 정량적관계분석, 한국과 말레이시아간의 사례 등을 다루고 나서 최종적으로 결론을 도출하였다.

본 연구를 위해 국가경쟁력은 하나의 지표로 정의되지 않는다. 국가경쟁력은 다양한 지표가 동원되어 형성되는데 예를 들면, 혁신, 교육, 기술, R&D, 무역개방성, 외국인직접투자(FDI) 등이다. 본 연구는 문화적 가치가 경쟁력과 밀접한 관계가 있음을 보여준다. 상관관계테스트에 따르면 개인주의와 혁신은 서로 긍정적인 영향을 준다. 이와 유사하게 불확실성 회피가 학업성취도와 R&D 지출비용 모두에 있어 긍정적인 영향을 준다. 개방적인 문화 역시 FDI 유치와 무역개방성에 긍정적인 영향을 준다. 이 세 가지 점은 1 인당 국내 총 생산량과 밀접한 관계가 있다. 이 연구는 또한 선진국이 개인주의, 불확실성 회피와 개방성에 있어서 높은 수치를 보여줌을 뒷받침 해준다.

한국 및 말레이시아의 사례연구 또한 이 연구의 정량적 결과를 뒷받침한다. 지난 몇 십 년에 걸친 한국의 경제성장과정을 살펴보면 집단주의에서 벗어나 서서히 개인주의로 발돋움함을 알 수 있다. 아직도 한국에는 집단적인 문화가 강하지만 개인주의의 일부 특징을 선택적으로 도입함으로써 혁신과 경쟁력을 제고할 수 있었다. 한국의 혁신성과 이후 경제성장에 영향을 끼친 개인주의적 가치는 임원들에 대한 경쟁적 성과보상제, 기업경영과 경제정책수립에 대한 보다 진보적인 접근법의 도입을 포함하고 있다. 한국의 또 다른 문화적 힘은 불확실성의 회피다. 한국의 '빨리빨리문화' 와 미래중심적 태도는 R&D 와 교육에 대한 깊은 관심으로 이어졌다. 1997 년 외환위기는 불확실성회피지수(UAI)를 상승시켰고 한국의 기업경영수준을 세계적 수준으로 끌어올렸다.

한국과 달리 말레이시아는 불확실성에 대해 보다 더 관대하고 외국으로부터의 영향에 대해서도 개방적이다. 그러나 한국이 국가적 집단주의를 강조한다면 말레이시아는 인종적 집단주의를 선호한다. 이 인종적 집단주의, 보호주의, 낮은 불확실성 회피는 말레이시아가 경쟁력을 제고하는데 장애물이 되었다. 특히 혁신이 바탕이 되어야 하는 산업과 글로벌비즈니스 분야에서 더욱 그러했다. 인종적 집단주의는 말레이시아의 개방성을 제한했다. 혁신적 성장에 있어서 불확실성 회피율이 낮은 문화로 인해 '빨리빨리' 마인드가 발전하지 못했다. 열대자원이 풍부한 말레이시아는 느긋한 국민성을 가지고 있다. 빠르게 변화하는 첨단산업은 이러한 말레이시아 문화와 잘 맞지 않았다.

정리해 보면 한국은 개방적이고 성과중심적이며 불확실성에 대해 회피한다. 반면, 말레이시아는 인종을 중심으로 하는 집단주의를 강조하고 불확실성 회피에 대해 낮은 수치를 보였다. 말레이시아가 혁신 중심의 경제를 이룩하려면 개혁이 불가피한 상황에서 권력거리가 뿌리깊은

말레이시아 사회에서는 그러한 개혁이 쉽지 않을 것이며 국가를 미래로 이끌 정치적 개혁이 뒷받침되어야 할 것이다. 부유한 자본주의 경제를 이룩하려면 결과중심의 자본주의적 마인드가 필요하다. 따라서 경쟁, 성과, 개방성의 가치 즉, 혁신적 선진국의 경제발전에 있어서 중요한 역할을 했던 이러한 가치들을 포용함으로써 기존 문화에 대한 변화를 추구해야 한다.